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## Original Articles

### A CONSIDERATION OF CERTAIN RECENT DEVELOPMENTS IN PRACTICAL SERUM THERAPY\*

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Naturally the pre-eminent position in the list of remedies comprehended by the term, serum therapy, must be assigned to antidiphtheric serum or diphtheric antitoxin, which, of all the serums thus far evolved for application in the human being, has earned the distinction of being an absolute and certain specific. In truth, of the multitude of serums for other microbic diseases which have been produced and tested since the epoch in therapeutics inaugurated by Behring's and Roux's discovery, antidiphtheric serum has alone wholly fulfilled the expectations of those who believed a new era in the conquest of man's maladies had been inaugurated. But all the problems relating to this important biologic agent have not yet been solved. Take, for instance, the weighty matter of dosage. Here after some fluctuations caused by the occasional success in obtaining a very high potency serum in the uncommon horse, and the consequent stress laid upon the small dose of serum very high in unitary value, we find the current tending towards larger doses, or, in other words, more massive doses, irrespective of the potency. In several quar-

ters, and more particularly in the splendid results obtained in the Boston City Hospital, the importance of using larger quantities of serum has been demonstrated. It appears, indeed, that for the practical end in view, namely, the cure of diphtheria, a large dose of low potency serum is actually more effective than a small dose of one strongly impregnated with antitoxic power, and there are those who believe that these favorable consequences are due to the presence in antidiphtheric serum of some substance besides the specific antibody of diphtheria which, acting as a complement or otherwise, assists the specific antitoxin in overcoming the disease. My personal observation which began with an experience in producing antidiphtheric serum in the early days of its introduction and which has continued in private and institution practice, inclines me strongly to this view.

#### "Refined and Concentrated" Antitoxin.

Allied to this question of dosage comes a consideration of antidiphtheric globulin solution, or as it is called in commerce, "refined and concentrated" diphtheric antitoxin, the chief merit of which is said to be its small dose and a reduction in

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November 5, 1906.

frequency of serum reactions. This product which has been known in the experimental laboratory for several years is obtained by treating ordinary antidiphtheric serum after the process devised by Pick, Seng, Atkinson and others, and modified by Gibson. Essentially the procedure is to precipitate with ammonium sulphate, the proteids of antidiphtheric serum. These proteids are collected, dissolved, reprecipitated, then dissolved in saturated common salt solution. Here a separation of proteids ensues, certain globulins, including those carrying the antitoxin, being dissolved in the salt solution from which they are precipitated once more by ammonium sulphate or weak acetic acid. The final globulin precipitate is then subjected to dialysis by which the salts are removed and its solution follows. This solution of the globulins which is reduced in bulk as compared with the original serum volume, and which contains the antitoxin minus a certain amount lost in the manipulations, after bacterial filtration and the addition of a preservative, is the finished product, and in its smaller volume represents a concentration of the original antitoxic content of the serum. By this treatment one leaves behind serum albumin, the globulins insoluble in saturated chloride solution, the salts and extractives of the serum, and the finished product is a most attractive looking, clear fluid, which, in guinea-pig essays, neutralizes the test toxin just as does the antidiphtheric horse's serum.

Waiving the matter of volume in dosage which, after all, is of little significance to the physician skilled in serum injections, comes the vital question—does this solution of antidiphtheric globulins represent all the curative substances residing in the native horse's serum and essential for combating diphtheria in man in all its clinical manifestations, including the various forms of mixed infection. Or, to put it otherwise,

will globulin antitoxin endure the test of time and usage in an enormous number of cases which antidiphtheric serum has so splendidly withstood? If so, and if by its use, the frequency of serum sequels can be somewhat reduced, it should ultimately replace the whole serum as now employed.

#### **Antitetanic Serum.**

As for antitetanic serum, it must be reluctantly confessed that the beguiling promises of the laboratory have not been upheld at the bedside of the patient afflicted with lockjaw. The specificity of this serum as tested on laboratory animals is demonstrable by the same beautiful accuracy as obtains with antidiphtheric serum, but when man is infected by the tetanus bacillus to a point at which symptoms show, his organism is apparently overwhelmed by the deadly tetanus toxin to an extent prohibiting neutralization by antitetanic serum however administered, and by however heroic a dosage. Offsetting its therapeutic failure, however, is the certainty of its success as a prophylactic, and the vast importance of using subcutaneous immunizing doses of this serum in cases of suspicious wounds, and of dusting the dry powdered serum locally cannot be overstated.

To American physicians who have felt the desirability of some uniform measure of value of commercial antitetanic serum, it will not be unwelcome news to learn that the Hygienic Laboratory of the U. S. Public Health and Marine Hospital Service is about to establish a standard, which will be for tetanus serum the same guarantee of uniformity that their official or Standard Unit is for all antidiphtheric serums admitted to interstate commerce.

#### **Utility of Antistreptococcic Serums.**

Antistreptococcic serums, of which several are found in commerce both in the United States and in Europe, cannot be said to have fulfilled the original ex-

pectations of their therapeutic efficacy. Furthermore, there is much variation in the different brands found on the market, both in their behavior in laboratory tests and in their use at the bedside. I cannot here discuss the very inviting subject of animal tests of antistreptococcic serums, or point out what in my estimation is the absurd futility of attempting to gage the therapeutic value of these serums in human infections by mouse, rabbit or guinea-pig experiments. But appraised by the supreme trial of any therapeutic agent's serviceableness—the results of its clinical application—one must admit that for certain at least of the products now found on the market, evidence is strongly in favor of their usefulness in various streptococcus infections whether primary or secondary. From what I have individually seen during the last year in the trial of a certain antistreptococcic serum, and from what has come to my personal notice of the written or verbal testimony of competent medical men, I cannot escape a conviction as to its therapeutic value in such affections as scarlet fever, acute and chronic rheumatism, various local or regional streptococcic infections including acute otitis media and mastoiditis. In the streptococcus mixed-infection of phthisis, a curious contradiction exists in the extreme enthusiasm of one group of reporters and the unqualified dissent of another. A similar incompatibility is found in recent German literature concerning the value of antistreptococcic serum as a prophylactic against infection in extensive surgical operations, either in conditions in which pre-existing infections are likely to be aroused to further activity or where the extent of operative mutilation predisposes to infection.

But with what we know of our helplessness in the fact of many infections with the streptococcus, and since biologic therapy has not yet offered, at

least for acute streptococcic diseases any remedy except antistreptococcic serum, physicians should, I believe, allow themselves to be swayed by the clinical testimony thus far adduced, and give their patients the benefit of such doubt as may exist, administering antistreptococcic serum in sufficient doses to permit a fair trial.

### Serum Therapy of Pneumonia.

Of antipneumococcic serum it may be said that the status is one of uncertainty much more pronounced than regards the antistreptococcic serums. That this should be the case must cause profound regret on the part of every physician who realizes that croupous pneumonia heads the list of fatal acute infections during the cold season in our north temperate zone, and that it chooses indiscriminately young and middle-aged robust adults in all walks of life. Today one hears little or nothing about several serums for pneumonia proclaimed in Europe on the basis of laboratory experimentations and a limited trial in hospital and private practice. Perhaps the same fate may await a report which I possibly may make in due time of an antipneumococcic serum which has been produced under my direction, and which was given preliminary clinical trial last spring in Detroit through the kind co-operations of several local physicians, and in three of the leading hospitals of Chicago.

My own verdict on these tests of the new serum for pneumonia is—satisfactory but not conclusive. Satisfactory is a justifiable report in that no untoward or harmful effects were noted, though considerable amounts of serum were used in several cases, intravenous injection being practiced in the most urgent ones, and, further, some astonishing and rapid recoveries, quite out of accord with what one might expect to see in the ordinary course of cases of pneu-

monia of the same type, were noted. The decision is inconclusive from lack of a sufficient number of cases to warrant more than preliminary deductions, and for the reason that some of the material was of far-advanced pneumonia, complicated pneumonia, and the pneumonia of particularly poor subjects like alcoholics, a class of cases that should, except for a most far-reaching trial of the serum's virtue, be excluded. The one particular impression gained by the use of this product was the remarkable manner in which it aborted or cut short what apparently were beginning typical attacks of lobar pneumonia.

#### Cerebrospinal Meningitis.

Another conquest of the biologic therapist greatly to be desired is that of cerebrospinal meningitis which, in sweeping epidemics or in insidious sporadicness, has made itself a dreaded scourge among the civilized races, particularly of the north temperate zone. Activity in this direction has not been fruitful to the present time. For example, during the Silesian epidemic of cerebrospinal meningitis in 1905 Göppert treated eight patients with a serum obtained from Doyen in Paris, with apparently detrimental effects in all of them. This serum, when examined by v. Lingelsheim was found to be devoid of any agglutinative action on the meningococcus. Kolle and Wasserman have produced an antimeningococcic serum which has been tested for its agglutination, and for its opsonic power in rabbits. So far as I can learn the clinical usage of this product has not been reported. Flexner, from the Rockefeller Institute, and several workers in the research laboratory of the municipal health department of New York, have made immunizing experiments in various animals and have tested the serum in experimental meningitis of guinea-pigs and monkeys. My personal efforts which are now

given publicity only in a preliminary manner, have extended to the test in four cases, of the serum from a horse treated with the poisons obtained from the meningococcus by a method already published. This serum certainly differs from the reported action of Doyen's, as it is highly agglutinative for meningococci and, though employed in large, subcutaneous doses, aroused in none of the patients harmful effects except a slight and transient serum reaction. There seems to be an agreement on the part of the several Detroit physicians through whose kindness I obtained access to these cases that a prompt and beneficial influence on the nervous symptoms (delirium, stupor, coma, restlessness, etc.), followed the administration of the serum. In the first case, one of the fulminant variety which I saw with Dr. P. B. Taylor within twelve hours of its terrific onset, the patient was able to leave her bed in three weeks and has made a perfect recovery with the exception of total deafness. The other cases which were kindly placed at my disposal by Dr. P. C. McEwen and Dr. W. G. Hutchinson were more advanced in the disease (7 to 10 days). One of these has made a surprising recovery after passing through the hydrocephalic stage of subacute meningitis. The two other patients died after removal from the hospital, where one was apparently on the road to restoration. This meager material would seem to indicate that the serum in question possesses antitoxic properties, but in its present form is powerless to check the progressive bacterial infection. I am in hopes that some improvement or combination may be secured whereby the antitoxic effects of a serum for cerebrospinal meningitis can be reinforced in the direction of an antibacterial property.

#### Gonorrhea.

Serum therapy has not yet conquered



the ravages of the gonococcus, though interest in this alluring possibility has recently been revived by the report of J. C. Torrey on the production of an antigonococcus serum from rabbits, and of Rogers concerning the use of this serum in gonorrheal rheumatism. Both in the employment of rabbits' serum in these experiments and in those of Beebe and Rogers who injected the serum of specially treated rabbits in patients with exophthalmic goiter, a peculiar and very troublesome reaction followed, seemingly induced by the blood serum of this animal. Undoubtedly this objection will be largely obviated if the horse can be successfully treated with the gonococcus or its products, and I look with hopeful anticipation to an early date in which such a serum will be available for the treatment of gonorrheal rheumatism, and, along a different line, I believe we shall soon enjoy a specific and satisfactory biologic therapy for the various manifestations of subacute and of chronic gonorrheal infections.

#### Technic of Serum Injections.

My contact with physicians at the bedside indicates that a few words about well-established features in the technic of serum injections may not be out of place. The mistake of injection into the muscles, especially of the buttock or limbs, should be avoided as unnecessarily painful; and for the preferable subcutaneous injections the site of election is the loin or flank where, if one penetrates the proper layer of tissue a quantity of serum of 40 cc. to 60 cc. and even more, can, if necessary, be inserted through a single puncture with no particular discomfort to the patient, and with only a diffuse temporary and moderate swelling. Then there still exists the fallacy about the danger of air injection which was thoroughly exploded several years ago by McClintock and others.

Intravenous injection of serums is in-

dicated wherever there is a necessity for prompt action, as in advanced and even apparently hopeless cases of diphtheria, in tetanus, and in septicaemias. With the convenience afforded by the ready-to-inject devices of American serum establishments, direct intravenous injection is not especially difficult. The sterile needle with its rubber connection is inserted in the chosen vein (median cephalic or basilic preferably) rendered prominent by light bandage of the arm, and when the flow of blood announces the success of this maneuver the serum-containing syringe, with its contents heated to approximate the body temperature, is attached and the injection completed.

#### Rectal and Oral Administration.

Rectal administration of curative serums, especially those which are designed for use in chronic diseases, is gradually obtaining more extensive trial. Experimental investigations upon laboratory animals have given no definite information as to the possibility of obtaining through the rectum an absorption of the particular antibodies contained in the serum, indeed, my own tests in this direction indicate that antidiphtheric serum per rectum in dogs does not afford protection against diphtheria toxin subsequently injected through the skin. But on the other hand, competent clinicians in increasing number record beneficial effects where serums like the antistreptococcic are used per rectum in treating chronic streptococcus infections. Added to this testimony is the advantage that horse's serum by the rectum does not excite the more severe serum reactions observed in subcutaneous injection. The practice of using these rectal injections when the bowel has been emptied by a laxative and flushed, and of diluting the serum with two or more times its bulk of normal salt solution seems to me excellent.

It is not improbable that further clinical experience will confirm the claim of those whose habit it is to give curative serums by the mouth, especially under circumstances where subcutaneous injection is impossible or where no especial urgency exists. As an extreme exponent of this method of serum medication is Paton, who uses weak antidiphtheric serum per os in many kinds of infectious and other diseases irrespective of the offending microorganism; and who claims that beneficial results accrue from the increased tissue resistance and the leucocytosis provoked by antidiphtheric serum administered in teaspoonful doses at frequent intervals.

#### Hypersensibility to Serum.

The annoying reactions which follow the use of serums, and the happily rare accident of sudden death have been in-

vestigated along new lines of late. I cannot do more on this occasion than to call attention to the exhaustive studies of v. Pirquet and Shick on the "serum disease" as they style the various sequels of serum injection, and of Rosenau and Anderson from the Hygienic Laboratory of the U. S. Public Health and Marine Hospital Service who have experimentally investigated the subject of hypersensibility to horse's serum in laboratory animals. But one conclusion must be impressed on practicing physicians namely, that serum reactions and accidents are due to the foreign serum itself and have no relation to the particular antibodies (antidiphtheric, antitetanic, etc.,) contained in the serum. Further, it has been shown that the "refined and concentrated" diphtheric antitoxin is quite as capable of arousing the peculiar reaction in guinea pigs as is the whole native horse's serum.

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### CONCLUSIONS DRAWN FROM THREE YEARS' EXPERIENCE IN THE SERUM TREATMENT OF ACUTE ARTICULAR RHEUMATISM.\*

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The theory that acute articular rheumatism is due to an excess of lactic or uric acid in the blood had to give way to the researches of bacteriologists. The disease is now regarded by authorities as belonging in the class of infectious diseases, since many indications strongly point to its being of microbic origin. The exact nature of the microorganism has not been definitely determined, but that it, if there be a specific one, is a micrococcus is quite well established.

\*Read before the Section on Medicine at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

Wasserman, Menzer, Malkoff, Westphal and Allaria believe the microorganism to be a streptococcus or a diplococcus. Poynton and Paine are of the opinion that it is a diplococcus, while Tribolet and Walker and Ryffel consider the bacterium which has been designated as the *Micrococcus Rheumaticus*, as the specific organism causing the disease.

Clinical experience teaches that a polyarthritis often follows tonsillitis, infected wounds, septicemia, boils, scarlet fever and other infectious diseases. This,

with the various bacteriologic findings, seems to indicate that the disease may be caused by a variety of microorganisms, probably all belonging to the same species.

The exact nature of the infection not having been definitely determined, the rationale of using streptolytic serum in rheumatism may be questioned. In this regard it is well to consider that nature's method seems to indicate that immune serums have a larger field of application than the specific infections caused by the organisms in their production.

O'Malley<sup>1</sup> and Raynard<sup>2</sup> report favorable results with antidiphtheric serum in treating pneumonia. Huber<sup>3</sup> and Wolff<sup>4</sup> report favorable results with the same serum in treating cerebrospinal meningitis. Lopez<sup>5</sup> reports an extensive experience with marked beneficial results in treating "scarlet fever, tonsillitis, quinsy, etc.," with the same serum. Dr. Gottman, of Detroit, informs me that he has had four years' experience with the same serum in treating scarlet fever, usually with good results. I have repeatedly used antidiphtheric serum in scarlet fever and non-diphtheric throat infections for more than six years, with unquestionably good results. Ogli<sup>6</sup> reports favorable results with an anti-streptococcic serum in endocarditis. Dr. J. W. Foss in his report of mixed infection in tuberculosis treated with streptolytic serum says that "staphylococci disappear in almost the same ratio as streptococci." Others who have used streptolytic serum in mixed tuberculous infection have made the same observation.

The practitioner is not so vitally concerned as to *how* these serums cure diseases; practical results are what he is primarily looking for. Acute articular rheumatism, like other infectious diseases, varies in severity in proportion to the resisting power of the individual and the virulence of the invading or-

ganism, which produces mild types in some, and malignant types in others. When the mild types are met with it is often difficult to determine whether the inflammatory condition of the joints is caused by an infection or from other influences. For all practical purposes, however, we are safe in considering inflamed joints with a tendency of the inflammation to shift to other joints, associated with pain and fever, as being due to rheumatic infection.

Under the conventional treatment the results are not satisfactory. Clinicians differ in opinion as to the value of the salicylates, some ascribing specific action to them while others consider them merely sedatives, relieving pain. While a large majority of cases recover in from one to six weeks, the tendency to relapse is recognized. These relapses in many cases are so frequent and occur at such short intervals that the joints become enlarged and crippled from inflammatory deposits and adhesions, the condition becoming chronic. In other cases, the treatment is so inefficient that the inflammation in some of the involved joints lapses from the acute into the chronic state resulting in deformed, enlarged and painful joints. It is in preventing these relapses and prolonged cases, by instituting more efficient treatment in the acute stage, that the hope of avoiding cripples from rheumatism must be looked for.

These chronic cases are often erroneously diagnosed as "arthritis deformans," simply because the joints become enlarged and deformed. In articular rheumatism, lapsing into the chronic state, the seat of the trouble is primarily in the soft parts, associated with swelling, effusion and adhesions extending into the bony structure, causing enlarged, deformed joints. In arthritis deformans the original seat of the trouble is the bony structure with a distinct persistent tendency of the bones to become en-

larged and encroach upon the mobility of the joint, while the soft parts are not much involved. There is not much pain when the parts are at rest, and little or no fever is present. In chronic rheumatism the infection of the joint becomes chronic in the same manner as we have cases of chronic erysipelas and other intractable infections.

Heart infection, under the conventional treatment, is one of the most serious complications of acute articular rheumatism and unfortunately is quite frequent. From reliable statistics it appears that about one-third of the cases so treated are left with a crippled heart. In this regard the efficiency of the serum treatment is clearly shown. Of my 24 cases of acute rheumatic fever treated with streptolytic serum, but two developed heart complications. One occurred in a child two weeks after the joint infections subsided, which had yielded very promptly after two 10 c. cm. doses of the serum, each given hypodermically. Forty c. cm. of serum were given per rectum for the heart complication. The condition of the heart gradually improved, resulting in a good recovery. I feel certain that if more serum had been given at the start, the heart trouble would have been prevented.

The other case occurred in a boy, aged 16, subsequent to a slight relapse, which took place two weeks after recovery from the initial attack. There was no treatment given during this relapse, the inflammation subsiding spontaneously. Examination of the heart at this time revealed nothing abnormal. The boy was not seen until some months after that, when the heart trouble was discovered. The heart infection probably developed from lingering germs after the relapse. If serum had been given at the time of the relapse this complication might have been avoided.

The length of time required to effect a recovery with the serum treatment

varies. In acute cases the earlier in the course of the disease the treatment is started, the better, corresponding in this regard with serum therapeutics in other diseases. When the treatment is started during the first or second day, recovery usually takes place in a few days—the disease is aborted. In cases of longer standing it will require from one to two weeks' treatment. Where the conventional treatment has been used for one or more weeks without improvement, the results from the use of the serum vary, some patients recovering very promptly, while others require from three to four weeks attention, but they always recover.

The treatment is usually started with an initial dose of 20 c. cm. of the serum followed with 10 c. cm. every day thereafter, until the inflammatory condition subsides. In severe cases, 20 c. cm. should be given every day. In cases where there is considerable elevation of temperature the serum is tolerated better than in mild cases. So more serum can be given without producing a disagreeable reaction. A good index as to the tolerance of the serum is the amount of local inflammation produced by the serum from the previous injection. If there is considerable inflammation and swelling at the site where the serum was injected the previous day, the indication is that the patient does not tolerate the serum well, and if the treatment is pushed, will develop a disagreeable urticaria. In these cases the serum should be given per rectum. I have had some experience with the rectal use of the serum and find it quite efficient, although not as positive as the subcutaneous method. In acute cases I have particularly noticed that when additional joints become involved after the treatment is started, the inflammation in these joints does not last long. In persistent cases the inflammation may start anew in joints that have recovered, but if so, it always subsides in a



few days. I use no special diet in my cases and no treatment other than the serum. After the fever subsides, the patients usually have a good appetite and the prolonged, anemic, debilitated condition, following the conventional treatment, does not occur. One thing is essential: this serum treatment should not be used as a last resort—after everything else has failed, if the best results are to be expected.

Among the patients treated with the serum, I have had three relapses. One occurred one year after the first attack. Six doses of serum were required in the relapse to effect a cure. It is now nearly two years since his last attack. In the second case, the relapse took place eight months after the first attack. The patient came to my office requesting a repetition of the serum treatment. One dose of 10 c. cm. was all that was required. In the third case the relapse occurred two weeks after the first attack. This is the case referred to with the heart complication.

In chronic cases, where there is a distinct history of the condition having started with an acute attack which confined the patient to bed, the serum treatment is uniformly beneficial. The beneficial results may not be apparent at the start, but if the patient is brought under the influence of the serum, improvement will come. There is a distinct tendency on the part of the patients to continue to improve for months after the treatment has been discontinued. Chronic cases where there is no fever, do not tolerate the serum as well as acute cases, the serum producing disagreeable urticaria, if the treatment is continued. For this reason it should be given at intervals of from two to three days, in 10 c. cm. doses.

When much swelling is at the point of injection the serum should be withheld for a week or more. After a patient has once had a serum-urticaria, he becomes very sensitive to subsequent injections, sometimes one dose of 10 c. cm. being sufficient to produce the rash. These urticarias are always associated with joint-pains and some fever. Where a patient becomes sensitive to the hypodermic use of the serum it should be given per rectum, but in larger and more frequent doses. The treatment should be kept up for months, according to the nature of the case. In one case, I gave the serum at intervals for a year. This was a case of five years' standing and very much crippled. The patient's suffering from repeated relapses has been stopped and her crippled condition very much improved. No beneficial results were obtained in three cases of true arthritis deformans in which the serum was used. In one case of muscular rheumatism no results were obtained.

From a few articles in medical journals it appears that some clinicians are still contending against the infectious nature of acute articular rheumatism. The efficacy of the serum treatment, as demonstrated by actual clinical results, should, it seems to me, be conclusive evidence as to the infectious nature of the disease.

In conclusion, I would say that the results thus far obtained are (a) a material shortening of the course of the disease, (b) no relapses into the chronic state, (c) heart complications diminished in frequency or more often entirely prevented and (d) chronic cases much improved with a distinct tendency to complete recovery.

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1. *J. A. M. A.*, Jan. 31, 1903.
2. *Am. Med.*, Jan. 1, 1901.
3. *Med. News*, April 15, 1905.

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5. *Am. Med.*, Jan. 27, 1906.
6. *J. A. M. A.*, April, 1903.

## DISCUSSION.

E. C. Yarborough, Detroit, stated that it has been his observation that all these cases, both acute and chronic, are benefited by the serum treatment. Very recently he saw one of Dr. Sherman's patients who had been a cripple for years. There were flexion and ankylosis at the knees. The patient was unable to rise from the

sitting posture without assistance. Following treatment, flexions lessened so that her crutches had to be lengthened  $4\frac{1}{2}$  inches.

G. H. Sherman, Detroit, in conclusion, said that his experience convinced him that serum treatment had no bad effects and very much in its favor.

## PATHOLOGY OF PNEUMONIA\*

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Pathologically there are three different and distinct types of pneumonia: Lobar, Broncho-, and Chronic Fibroid.

## LOBAR PNEUMONIA.

Lobar pneumonia is an infectious disease with certain definite and constant pulmonary lesions, which develop in a well-defined course. The first stage is one of simple hyperemia, obviously very difficult to demonstrate pathologically. Hyperemia of the lung is only a relative condition at most, and that condition changes within varying limits after death. Then, too, there are very few patients, indeed, who die during this primary congestive stage. At this time the lung is of a bright red color modified by the normal pigmentation—anthracosis, etc.

The engorgement increases, the pleura loses its luster, and minute hemorrhagic infarcts, or extravasations of blood make their appearance. Upon section, the lung resembles the spleen in consistency and appearance, whence the commonly applied term, splenization. Blood and air follow the knife which meets with no resistance. Crepitation of the lung substance is undiminished, and pieces when thrown into water float

at a slightly lower level than normally.

Microscopically some of the capillaries—those of the pulmonary set—are seen to be distended, and the epithelium lining the air vesicles is slightly swollen. As this condition continues for a few hours the capillaries are widely distended, the epithelium more swollen, and some is beginning to exfoliate, with the accumulation in the air vesicles of a few epithelial cells, many leucocytes, and some serum that is beginning to filter through the distended capillaries.

When the air cells are filled by these cast-off epithelial cells, leucocytes and erythrocytes, which also pass through the vessel walls by the process of rhexis, and by the fibrinous exudate, the fibrin is deposited, consolidating the whole mass and binding the contents of the adjacent vesicles together by the passage of fibrous strands through minute holes in the walls called stomata, then we have the second, or stage of red hepatization,—the mass being red from the presence of so many erythrocytes, the name significant of the close resemblance to the liver on section, both in consistency and gross appearance. The cut surface looks and feels granular, due to the projection of the plugs of fibrin which fill the air vesicles and bronchioles. These plugs are easily removed

\*Read before the Calhoun County Medical Society, at Battle Creek, September 4, 1906.

by the edge of a knife, carefully scraped over the cut surface. Crepitation is entirely absent now, showing the absence of air, and the tissue sinks rapidly when placed in water.

During this time the pulmonic capillaries have become occluded by thromboses which gradually force their way back toward the larger pulmonary arteries and the heart, and no blood is passing through this diseased portion of the lung for purposes of aeration. The other set of capillaries, the pneumonic, which carry the systemic blood for purposes of nutrition, are but slightly, if at

The red pigment is gradually absorbed from the blood cells imprisoned in the consolidated mass; leucocytes accumulate in great numbers; and fatty degeneration sets in, producing gray hepatization, so named from the color assumed. The tissue becomes soft and uneven in color, giving a mottled appearance. A small amount of proteolytic enzyme has been produced from the breaking down of leucocytes, which has just begun, and this dissolves the fibrin so that it cannot be demonstrated microscopically. Gray hepatization is in reality only the beginning of resolution.

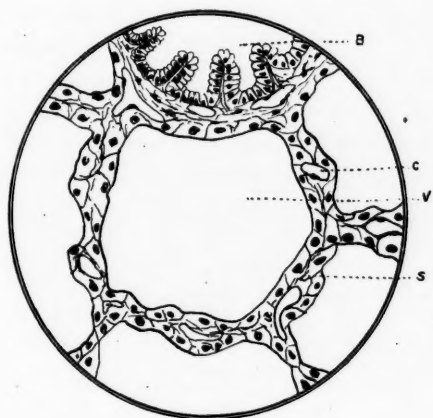


Fig. I - B. Small Bronchus. C. Capillary.  
V. Air Vesicle. S. Septum.  
Normal Lung - Semi-Diagrammatic.

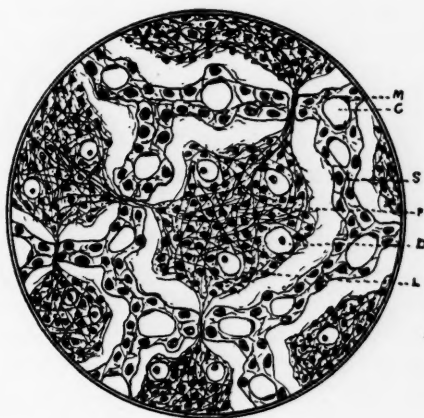


Fig. II - M. Stoma. C. Capillary. S. Septum.  
F. Fibrin. D. Desquamated Epithelial Cell.  
L. Leucocyte. Lobar Pneumonia.

all, affected, as is shown by the fact that the lung tissue is well nourished, and continues so except in those rare cases in which gangrene develops, and that only follows the occlusion of this pneumonic circulation to the part.

Usually at this time the pleura adjoining the diseased lobe, and often that more distant, is covered by a dense, hard, fibrous layer which may be as much as an inch in thickness, and may bind the visceral to the parietal pleura. The affected area of the lung, if of any considerable size, will now show the impression of the ribs.

The term purulent infiltration, often applied to the lung in the condition just described, is a misnomer, for there is no true pus present, except in isolated cases when a secondary purulent infection has occurred. The pus-resembling material is a fatty, granular detritus.

By the increased breaking down of the leucocytes, proteolytic enzymes are now formed in great profusion, which together with the process of fatty degeneration, softens the consolidated mass, liquefies it partially, and it is removed by the lymphatics, by the blood, and by expectoration. This process is called

resolution, and continues until recovery is complete. The thrombotic material in the pulmonary circulation is gradually absorbed by the blood, being rendered soluble by the action of proteolytic enzymes produced as before described. The epithelium covering the walls of the bronchioles and the air vesicles is regenerated, and the lung resumes its normal appearance, so that after recovery it is impossible to tell from microscopical examination that the disease has been present.

Resolution is sometimes delayed, making a long, slow process. Much speculation has been advanced to account for this condition, but recent observations by H. W. Cook in the laboratory of Johns Hopkins Hospital, on the nitrogen elimination of pneumonia patients, show that this is very high during resolution, and continues so in the cases of delayed resolution until it is completed. The nitrogen comes undoubtedly from the increased excretion required by the removal of the consolidated mass in the lungs. The persistent high percentage of nitrogen eliminated would seem to indicate that there is a continued exudation, rather than simply a delay of resolution. If the latter were the case it would be impossible to account for the large amount of nitrogen eliminated.

The processes of lobar pneumonia as above outlined do not occur as distinct and separate stages, but merge one into the other. A section from such a lung will often show two and sometimes three stages of the process in adjacent fields of the microscope. Neither do these processes occur with any distinct regularity as to time—the whole process, clear through resolution, may take place in three days. Holt has seen a lung in the twenty-sixth day of the disease and resolution not yet set in. Coplin reports a case in the stage of red hepatization the thirty-ninth day from the initial chill.

Purulent degeneration and gangrene may occur at the beginning of resolution if the proper conditions are present—secondary infection, and occlusion of the pneumonic circulation.

Lobar pneumonia is not a true inflammation, for the tissues do not all show the inflammatory process. The inter-vesicular septum is very slightly if at all affected, the epithelial lining of the vesicles and the pulmonary circulation being the seat of disease, and the exudate being different from that usually present in inflammations, being fibrous rather than serous.

Cloudy swellings of the heart muscle, liver, and kidneys are the main complications, and are due to the method of disposal of the consolidated mass. Dilatation of the right heart also occurs, due to the increased resistance of the pulmonary circulation and a consequent increase in the work of the right ventricle.

#### BRONCHO-PNEUMONIA.

Whatever the etiology of broncho-pneumonia, whether it is a primary or a secondary disease (the text books say it may be either), the pathology is that of the extension of an exudative inflammation from the bronchi, and bronchioles. First there is simple engorgement of the capillaries of both pulmonary and pneumonic circulations, which is very marked; then follows a swelling and exfoliation of the epithelial lining of the bronchioles and air cells, and exudation of serum, which may contain fibrin, but usually does not. Leucocytes pass into the air cells by diapedesis.

This inflammatory process passes along the bronchi, and through their walls, affecting the air vesicles adjacent, whether terminals of the diseased bronchus or not. The terminal air cells are affected from a bronchus if the inflammation extends that far, which is often the case in a well developed



broncho-pneumonia. When the terminal cells are not affected, they may collapse or not, depending upon whether the contained air is removed.

Engorgement, red and gray hepatization, and resolution occur in broncho-pneumonia, but not in such well-marked routine, not so well defined, nor so regularly as in lobar pneumonia. The exudate does not solidify, owing to the lack of fibrin.

Near the diseased part, the lung shows compensatory emphysema—a dilatation of the air cells, with atrophy and rupture of parts of their walls and the loss of

disturbances. The vessels are enlarged, and surrounded by leucocytes which are infiltrated into the tissues, the walls become swollen and edematous due to the exudation of serum, and the connective tissue and epithelial cells begin to swell and become somewhat granular. The process extends into the air cells adjoining, which, with the bronchi, are filled gradually with a mucoid serum containing the exfoliated fatty and granular epithelial cells in great numbers, compared to lobar pneumonia. Leucocytes and a very small number of erythrocytes, also collect in the exudate.

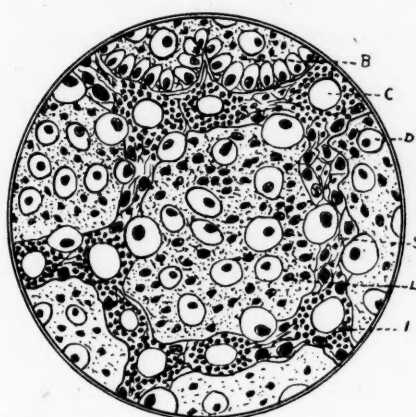


Fig. III. Broncho-pneumonia. B. Bronchiole.  
C. Capillary D. Desquamated Epithelium.  
S. Septum L. Leucocyte I. Infiltration.

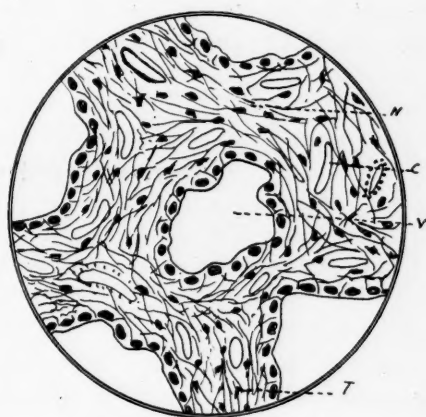


Fig. IV. Fibroid Pneumonia. C. Capillary.  
N. New-Formed Connective Tissue.  
V. Air Vesicle. T. Connective Tissue Cell.

their elasticity. The adjacent pleura is thickened and shows minute hemorrhages, caused by the excessive engorgement. These hemorrhagic areas, together with the close proximity of diseased and healthy lung, give the whole a mottled appearance.

The lower lobes on the posterior aspect, are the usual seats of disease in the commencement of the affection, but the anterior aspects of the upper lobes are often the site of selection; however, any or all lobes may be involved to a greater or less extent.

Microscopically the epithelial walls of the bronchioles first show inflammatory

The same microscopic field showing the conditions just described may show some apparently normal lung tissue, some collapsed, and some emphysematous.

Resolution takes place quite rapidly by means of the blood and lymph streams and by expectoration, the mass being softened and thinned by fatty degeneration and the action of proteolytic enzymes, formed from the broken-down leucocytes. The epithelium is regenerated on the denuded walls and recovery is complete. Owing to the presence of secondary purulent infection pus may often be demonstrated in the lung in the

later stages, contrary to the rule in lobar pneumonia.

Resolution may also be delayed in broncho-pneumonia, and in this case there is a fibrous tissue deposit after the manner of all inflammations, leading to chronic fibroid pneumonia, to be considered very briefly.

#### CHRONIC FIBROID PNEUMONIA.

Chronic fibroid pneumonia, or sclerosis of the lung, is the formation of new connective tissue in the lung, the thickening of the septa, and closing or obliteration of the air cells. This connective tissue contracts, binds the air cells together, collapses and obliterates them,

and produces a hard sclerosed mass. Unresolved exudate in the bronchi and air cells becomes organized by the proliferation of embryonic connective tissue cells and helps in this process of sclerosis.

These sclerosed lungs are hard and elastic, contracted to surprisingly small sizes, and difficult to cut. The undiseased lung and lobes show excessive compensatory hypertrophy, even forcing the mediastinal contents, heart and great vessels out of their natural location. The chest wall over the affected area is sunken in and the lung itself is of a gray color. The pleural sac may be entirely obliterated, but if not, the pleura is greatly thickened and hardened.

### INDICATIONS FOR ENUCLEATION\*

C. R. ELWOOD, M. D.,  
Menominee.

The removal of an eye is a subject of grave consideration in the mind of the patient as well as the physician. It ranks in the lay mind with the major operations, such as the removal of a limb, not only as a matter of sentiment, but also in the scale of damages allowed by accident insurance companies, and also by the courts in suit for the payment of damages.

The loss of visual range over a segment of approximately 60 degrees, and the resulting deformity, are factors in the production of the unwillingness of the patient to submit to the operation, and must be met by convincing reasons on the part of the medical attendants. As medical advisers, we must consider these important questions in all phases

and endeavor to avoid error, either through being too radical or ultra conservative.

Enucleation may be performed for the relief of intolerable suffering in a hopelessly blind eye, to check the process of malignant intraocular growth, as glioma of the retina in a child, for cosmetic reasons, for freedom from discomfort caused by diseased eyes that have long been blind, and last and by far the most important, for protection of the other eye.

Herman Knapp reports the case of a patient who upon leaving the hospital after the removal of the second eye, stated he was now happy that he could experience relief from pain which had been unbearable for years from glaucoma, and in which case the pain was slowly but steadily sapping the patient's

\*Read before the Upper Peninsula Medical Society, at Escanaba, 1906.

strength. The removal of the worthless eye resulted in greatly increased physical comfort and general improvement.

Glioma of the retina, probably the most frequent intraocular malignant condition for which enucleation is performed, is met with most frequently in babes and young children, is often unilateral and the only treatment of service (and even this offers slight promise) is prompt enucleation. This condition I have met with but twice in my practice and I am not anxious for further experience. If seen when the pupil first presents the glistening pearly white reflex, the amaurotic cat's eye, enucleation and later evisceration may save the child, but the prognosis in these cases is always unfavorable—recurrence or metastases usually destroy the patient.

To those to whom the sacrifice of the eye for cosmetic reasons seems hardly justifiable, I wish I could present a picture of a former resident of Menominee, an intelligent, fine looking young lady, excepting for the horrible disfigurement caused by bupthalmus or ox eye. A well fitted Snellen greatly improved her appearance.

The possession of an eye, blind from disease, is often a great handicap to the artisan who wishes to obtain employment, as large concerns do not wish to incur the additional liability to which an employee with but one eye may subject them. The modern Snellen or the Shell, fitted after a Mule's operation, will often enable the unfortunate who has lost one eye to conceal his deformity and thus save himself this handicap.

The real consideration of the subject of the "Indications for Enucleation" resolves itself, however, into the consideration of the prevention and treatment of that most dreaded of all dread diseases to the oculist, sympathetic ophthalmia. The pathology, symptomatology and treatment of sympathetic ophthalmia is in itself sufficient for a symposium,

and I will not attempt more than a brief resume, but let it suffice to say that the disease steals upon its unfortunate victim like a thief in the night, and he is often not warned of the approaching danger by the premonitory symptoms of photophobia, ciliary congestion, lacrimation and asthenopia, despite the statements which are still contained in many text books.

Whether the disease is conveyed to the fellow eye through the optic nerve trunks, via the chiasm through the intervaginal and subdural spaces, or along the vessels penetrating the eye and passing through the orbit to the cranial cavity, are open questions, but the consensus of opinion, at present, is that the disease is the result of the migration of the infection, probably bacterial, from the exciting to the sympathizing eye and not through irritation of the ciliary nerves. Gifford's three cases in which there were no other symptoms than impaired vision and deposits on the posterior surface of the cornea in the sympathizing eye, would argue strongly against the ciliary nerve theory.

Usually the entire uveal tract is involved, taking the form of a plastic irido-cyclitis, serious irido-choroiditis or a choroido-retinitis. The prognosis is essentially grave and relapses are frequent, although one's efforts may be first rewarded with apparent partial success.

Gifford, at the Columbus meeting of the American Medical Association, reported six cases of true sympathetic ophthalmia, the first symptoms of which were gradual loss of vision in the good eye and the presence of minute deposits on the posterior surface of the cornea, the latter being apparent only to the skilled observer. Although these cases were seen under most favorable conditions, even these mild symptoms did not occur until too late for enucleation of the exciting eye to check the disease.

This indicates the importance, whenever possible, of daily testing the vision in cases in which there is danger of sympathetic ophthalmia, but in which it seems possible to avoid enucleation of the injured eye, or where it is refused.

Inasmuch as sympathetic ophthalmia, when once established, offers a very unfavorable prognosis, the principal hope is in prophylaxis, and the only prophylactic measure worth consideration is enucleation, or one of its substitutes, in cases in which there is danger of its development.

Concerning the substitutes for enucleation, I have of late years found little necessity for anything different from the operation as advised by de Schwinitz. This consists in the usual operation of excision, after which the ends of the tendons of the opposing extrinsic muscles are sutured together. A well fitted Snellen over such a stump gives as satisfactory a result as would be desired. Indeed Snellen's reform eye fills the orbital cavity so satisfactorily and moves so easily that simple excision, saving all conjunctival and extra ocular tissue possible, gives a very satisfactory result.

There is, however, one exception to this rule, viz: when enucleation is necessary for a child. Where the eye of a young child is removed the intraorbital pressure and support necessary for the development of that side of the face is gone, resulting in slight asymmetry. To remove this objection it has been my custom recently, to perform the Mule's operation along the lines advised by Dr. F. C. Todd. This consists in complete evisceration of all intrascleral tissue leaving the sclera a hollow bowl shaped cavity with a white shining inner surface, after which it is thoroughly cleansed with a swab wet in pure phenol and then dried. A glass or gold ball is then inserted and the cavity closed by scleral and conjunctival sutures. Care should be taken in the selection of the

ball, as one too large, will crowd itself out, while one too small acts as a foreign body, by rattling about, as it were, in the scleral cavity and may be expelled. By placing the scleral and conjunctival sutures at right angles to each other, I have yet to have the annoying experience of expulsion of the ball as reported by some operators. Those who have done this operation for years are able to demonstrate that Mule's operation avoids that asymmetry of the face which is an objection to enucleation in childhood.

When there is any especial danger of sympathetic ophthalmia, I do not believe we are justified in considering for one moment any substitute for enucleation. Certainly none of them is safer, and if there is any possibility that they are not as safe prophylactic measures, we certainly cannot afford to take any chances.

The following indications for enucleation as prophylactic to sympathetic ophthalmia are in general those of Swanzy, and represent the published opinions of most authorities.

(a) "An eye with a wound so situated as to involve the ciliary region, and so extensive as to destroy the sight immediately, or to make its ultimate destruction by inflammation of the iris and ciliary body reasonably certain should by all means be enucleated."

I was very much surprised during some post-graduate study in an eastern hospital, to watch the care with which they had tried for weeks to save an eye hopelessly blind from injury involving the ciliary region, and upon my return put the doctrines of ultraconservatism into practice somewhat to my sorrow. I was visited by a patient who had received a severe cut across the eye, but with such an instrument that there was little danger of infection. Against my better judgment I thought I would try this conservative treatment and sutured the scleral wound after excising all in-



carcerated iris. Repair was by first intention and apparently complete, but the injury to the ciliary body so impaired the nutrition of the eye that it subsequently became atropic and a greater disfigurement than a well fitted Snellen, to say nothing of the longer time involved in treatment and the danger of subsequent sympathetic ophthalmia to which this child was subjected.

The case, which has aroused considerable public interest on account of a home newspaper's attitude in the matter, was of this type. The patient, a boy of five years, was cut across the eye from sclera-corneal margin on one side to the other, a very small portion of the ciliary body being involved, but there was extensive incarceration of the iris. The eye repaired from the injury and I did not see the patient at all until the end of the fourth week. The area involved was such that in view of the fact that the child was hopelessly blind in this eye and the parents ignorant and indifferent concerning treatment, I urged enucleation. They did not accept this suggestion, and the next time I saw the child he had had sympathetic ophthalmia for almost two weeks, during which time there had been one or two days during which he had been practically blind. Enucleation was now insisted upon, and after a few days permission obtained. The remaining eye has subsequently cleared considerably, although there is great danger of relapse, as a plastic irido-cyclitis was already established, and with the iritic adhesions present there is constant irritation of the bound down iris. In this case there has been practically no treatment, but the enucleation, and although I do not approve of this course, removal of the exciting eye alone resulted in relief from pain and photophobia, with greatly improved vision.

It is not necessary that the wound be in the ciliary body to excite sympa-

thetic ophthalmia. I recently saw a prominent citizen of southern Wisconsin, who is threatened with total blindness, and for whom the most that is promised is ability to get around and care for himself. In this case the sympathetic disease was the result of a perforating corneal ulcer. There had been considerable pain in the sympathizing eye, but the most important symptom was gradual and constant impairment of vision.

(b) "An eye with a wound in the ciliary region, already complicated by severe inflammation of the iris or ciliary body, even if the sight is not wholly destroyed or the eye containing a foreign body which judicious efforts have failed to extract and in which severe iritis is present, even if the sight is not wholly destroyed, should be removed."

I have had several cases under this subdivision, the most interesting of which was a farmer from Amberg, Wis., who, while chopping wood, was struck in the eye by a chip. This was immediately removed, but the patient became blind in this eye and suffered severe pain. A perforating wound could be readily seen through the cornea, iris and lens, and as the eye was totally blind and intensely painful, enucleation was advised. The small sliver seen in the anterior chamber in the specimen I present was found in the middle of the vitreous chamber, but unfortunately displaced from there to where you now see it, through manipulation in mounting. There are very few cases of this character on record, but it demonstrates the force with which so small a foreign body as a splinter of wood can be driven. I have had several cases of iron splinters in the interior of the eye, in which enucleation was ultimately necessary, but this is my only experience with so small a piece of wood.

I have at present under observation a miner who may, and I believe has, a

foreign body in his vitreous chamber, but I have not suggested enucleation. He has a traumatic cataract which is being removed by discission. Enucleation is contraindicated in this case because he has good light projection through his opaque lens. There is no inflammatory reaction in either eye; he has good vision in the remaining eye, and his physician is carefully watching the sight in the uninjured organ. Should vision become impaired it would be a signal for immediate investigation. Then should the injured eye be found tender over the ciliary body and there be punctate deposits on the posterior surface of the cornea of the better one, the safest course would be prompt enucleation of the injured organ, unless sympathetic disease is already established and vision in the sympathizing eye much reduced, in which event there is a difference of opinion as to the better course to follow. There is a case on record in which enucleation of the injured eye was refused after sympathetic ophthalmia had become established, and it ultimately had better vision than the organ involved secondarily. As Gifford states, this is no proof that the sympathizing eye would not have had still better vision had the one causing the trouble been promptly removed. These cases must be decided upon their individual merits, and I hope to be relieved of the responsibility of deciding upon the removal on an eye with some vision which has already excited sympathetic inflammation in its fellow.

(c) "An eye, the vision of which has been destroyed by plastic iridocyclitis, or one which has atrophied or shrunk, providing there are tenderness on pressure in the ciliary region and attacks of recurrent irritation, or even without waiting for signs of irritation, such an eye should be removed." This is true not only because of the great danger of sympathetic inflammation, but also be-

cause of the additional comfort a patient obtains from the removal of a permanently functionless, dead organ, a constant source of discomfort as well as risk to its fellow.

Some years ago I enucleated such an eye, which gave no evidence of sympathetic ophthalmia, but which was hopelessly blind and had been for several years. The patient remarked when he was leaving the hospital that he had no appreciation of the discomfort caused him by the blind eye until he was rid of it, and I have recently enucleated another such an eye for a patient who had been burdened with it for many years, simply because of his sentimental objection to sacrificing a useless part of his anatomy for the safety of a remaining portion.

(d) "An eye whose sight has been destroyed, even though sympathetic inflammation has begun in the other eye, in the hope of removing the source of infection and thus rendering treatment of the second eye more efficacious, should be removed."

(e) "An eye in which the wound has involved the cornea, iris or ciliary body, either with or without injury to the lens, and in which persistent sympathetic irritation in the fellow eye has occurred or in which there have been repeated relapses of sympathetic irritation, should be removed, and an eye whether primarily lost by injury or in a state of atrophy, associated with symptoms of sympathetic irritation of the fellow eye, should be removed."

Lacrimation, photophobia, asthenopia, and pain on pressure over the ciliary body of the injured eye, while symptoms of irritation only, are sometimes precursors of inflammation and as such an eye as just described is useless at best as an organ of vision, it is the safe course to remove it for the safety of its fellow—at any rate that would be the treatment I would want were I the pa-

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tient. An atrophic eye is essentially a dead one and much more disfiguring and more dangerous than a Snellen over a good stump.

Sympathetic inflammation is to be differentiated clearly from sympathetic irritation. In the latter we have a functional disturbance presenting a series of symptoms comprising blepharospasm, lacrimation, photophobia, asthenopia and tenderness on pressure over the ciliary region of the exciting eye as I have repeatedly stated, and these, while not symptoms of the more serious disease, are certainly valuable danger signs, and when they are present, the physician should be constantly on his guard and insist upon most carefully and frequently watching for impaired vision or deposits on the posterior corneal surface.

It has for many years been thought that an eye lost through panophthalmitis would not produce sympathetic inflammation in its fellow, the opinion being

held that the disturbance in panophthalmitis was so profound as to effectually seal all possible avenues of communication between the two eyes. Wurdemann has recently reported one case in his own practice and three in the practice of others, in which serious sympathetic ophthalmia has resulted from an eye long lost through panophthalmitis.

This dreaded disease comes on any time after the third week following an injury to the exciting eye, most frequently during the fourth to sixth week, although there is no time limit, many cases being reported occurring years after the original injury.

Enucleation, or one of its substitutes, is certainly a most valuable surgical procedure to be employed with neither ultra conservatism or too pronounced radicalism, but when properly employed will save many a sufferer from humiliation and embarrassment, intolerable pain, and most important of all, danger of the loss of the remaining eye.

## THE CURSE OF MISCARRIAGE TO OUR AMERICAN WOMEN WITH A FEW SUGGESTIONS IN THE WAY OF A REMEDY\*

F. J. W. MAGUIRE, B.S., M.D.,  
Detroit.

My attention was first attracted to this subject by the large number of unfortunate women who have consulted me during the past few years, requiring surgical relief from the terrible ravages following abortion. These were largely recruited from so-called respectable married women; they did not even have the excuse of the unfortunate girl deserted by her lover, who, fearing to face the scorn of the world, is sometimes driven to this desperate remedy. It ap-

pears to me that a discussion of this subject should be from both the moral and scientific standpoint, for undoubtedly a great many of the ills surgeons are called upon to remedy, are due to depraved morals. The laity is ignorant of the fearful results following abortion. Popular education along these lines through the medium of magazines that reach the public, is necessary. The public do not read medical journals. The country must look to our profession for instruction along this line, and, if we continue silent, we fail to do our duty.

\*Read before the Section on Obstetrics and Gynecology at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

The physician, more than any one else, is familiar with the statistics of this abominable crime, for, is he not called upon to help remedy its evil effects?

I believe it remains with the physician to suggest a remedy; and furthermore, to do all in his power to make that remedy effective. I am sorry to say that there are still quite a few men who disgrace our noble profession by lending themselves to this lowest form of murder—killing the defenseless fetus in utero, but I am happy to say that the majority of those engaged in this nefarious practice are not physicians, but are men and women of depraved nature and habits. That men and women draw their livelihood by depriving others of life, seems incredible, but it is none the less true and we have plenty of evidence to prove it.

Take for example advertisements in our daily papers and magazines of Pennyroyal Pills for Women; etc. All these so-called remedies are guaranteed to regulate the catamenia, in other words, are guaranteed to kill the living fetus. We cannot help asking ourselves why people marry only to reverse the laws of nature. Surely the gratification of passion is only incidental to this state, the object of which as ordained by God, being to perpetuate the human race. Some will tell you "that children are a great care," that it costs so much to educate them. I cannot deny that children are a care, but is that any reason why they should be murdered? As to the expense of educating them, what about our boasted educational system of free public schools? The expense of raising a family is not as great as some would make you believe. It is true that sacrifices must be made by the parents, but look at any family of well-bred children surrounding their parents and ask yourself are not the parents well repaid for any sacrifices they may make, and on the other hand look at the childless

home and tell me if the gratification of a few selfish pleasures repays the parents for the loss of children and the loss of the true atmosphere of a home. Our sympathy goes out to the childless couple when their condition is due to nature, but we can feel no sympathy for those who have brought it upon themselves.

I think one of the saddest experiences in my professional life was in being unable to offer any help or consolation to a barren wife, who through an abortion in early married life had totally destroyed the organs of reproduction. Look at the large families reared by our grandparents, they surely had smaller incomes than the average to-day. If they practiced the habit of abortion so prevalent to-day, many of us would never have been born. Again compare the health of our grandmothers with the young married woman of to-day, and you will find the grandmother had better health, notwithstanding her large family and the attendant care it required. Surely this refutes the argument that mothers of large families have poor health. The facts prove the reverse to be true.

Some women complain of the suffering of childbirth. I can only say that the joy to be found in the new born will repay the mother a thousand fold. I hope the woman of to-day is not a coward; can she not brave the pains her mother suffered for her? If she cannot or will not, then let her not assume the responsibilities of married life. The habit of abortion, (for it is becoming a habit) is not limited to the so-called "Four Hundred," but runs down the social scale to the washer-woman. They all offer a pretext for not having children, but they have no moral or scientific reasoning to back up their excuses. A learned judge in our city stated not long ago that the majority of people who came to his court seeking divorces were childless, and I am inclined to believe



our chancery judges in other states will corroborate him in this statement.

It is an open question which of the two, husband or wife, is most to blame for the crime of abortion. It is a man's God-given instinct, if I may so use the term, to wish to perpetuate his name and race and the whole institution of marriage, both morally and legally is based on this presumption. In a legal sense, marriage is a contract sworn to by both the man and the woman by which they are allowed to assume a sacred relationship and with it the responsibilities that are inherent to that relationship. Surely it is a grievous crime to break their solemn oaths, to violate their contract and their crime is made still worse by the fact that in breaking it they are guilty of a still more terrible one, that of murdering an unborn fetus. I cannot realize how a man who has any love for his wife, will permit her to jeopardize her health and often her life by having a criminal operation performed. The desire for a small family is frequently with the wife, but it is the husband's duty to see to it that he does all in his power to prevent her committing this abominable crime.

The husband usually having the authority in the home should use it, not to force his wife to commit this horrible crime, but rather to reconcile her to her condition. A great deal of the blame, however, rests with the woman. has selected her for this sacred mission and in doing so, he did not order her to bring one or two children into the world and then kill the rest before they were born. Our ideal of a woman, and espe-

cially of a mother, endows her with all tenderness for children and when she looses these attributes and debauches her sacred calling and becomes a murderess, surely our respect for her is gone, and the homes of our country are in grave danger.

The remedy: The first law that should be remedied is our marriage law. Under existing conditions, mere girls and boys enter this most sacred and responsible relationship, without any thought whatever of the burden which belongs to that state. The divorce law, sapping this great American republic at one end and our contracted families at the other, will, before the next two decades pass, place this country in the hands of a foreign population, and the words, "American born" will have become almost obsolete.

My object is introducing this subject at this meeting is to feel the pulse of my brother practitioners as to the advisability of having a bill introduced at the next meeting our our State Legislature, making it a crime for anyone to approach a physician and ask him to become a party to this heinous crime of abortion. Under our present law, it is no crime to ask a physician to perform abortion, thus placing our noble profession in a category with an ordinary hangman, a law of this kind will go a long way towards stopping this vicious practice and at the same time save the profession from this terrible insult. We will thereby show that the profession is not so ready to perform abortion as was suggested recently at the meeting of the Wayne County Medical Society.

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Avoid introducing a uterine sound in examinations when pelvic inflammation is suspected. It may set up a parametritis.

Metal crochet needles are often of great service in removing retained sutures from the depths of sinuses.

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In seeking a cause for torticollis, don't fail to examine the teeth.

Unless some other cause is evident, don't fail to examine for signs of tabes when an adult complains of pains about the waist, in the back or in the lower extremities.

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JANUARY

### Editorial

During Nineteen Hundred and Six what was accomplished by our profession? This is a question well worth discussing. We should now and then pause to consider the progress which is being made, the questions which are uppermost, and the tendencies which will go far towards determining the future.

It must be evident to all that the practice of medicine is yearly becoming more exact and more scientific. This was never more clearly demonstrated than during the past year, and the advances which were made were both important and substantial. The enthusiasm shown within recent years, by the profession, for the improvement of sanitary conditions and especially for the education of the laity along important lines, has been much in evidence during the year just closed. Moreover, the efforts of the profession to improve its own condition and uplift its members, have produced excellent results during 1906. It is along these three broad lines, scientific, altruistic, and politic, that progress has been made.

The most important scientific work during the past twelve months has been in the domain of serum therapy. While the original observations on opsonic therapy were made previous to the past year, nevertheless, nineteen hundred and six saw the theory quite extensively put

into practice in various parts of the world, so that this great advance in practical therapeutics may be said to have been begun in that year. With the exception of Wright's theory, the most discussed themes in scientific literature were Bier's congestive hyperemia and the physiology of heart block. In surgery, there were many live topics, but no epoch-making discoveries. Nevertheless, the advance there was real and important, so that it is safe to say that, taking the world at large, more surgery and more successful surgery was done in 1906 than ever before. To the sciences allied to medicine, many important contributions were made during the year.

A most important tendency of the times is the activity of our profession in the matter of educating the people of this great country in matters pertaining to health. We are just awakening to the sense of our duty toward our fellowmen and a most important awakening it is, for if the medical profession does not teach and lead the way in the great health problems which are to be solved, others will attempt to do so and public sentiment will be awry. Unless public sentiment and public knowledge are put upon a higher plane, the laity will continue to be influenced by such bigots as Fra Albertus, the "Pericles" of the *Philistine*, whose anti-vaccination tirades, etc., are doing an immense amount of harm. When the manager of the Detroit United Railway says, according to the public prints, that street car ventilators are quite unnecessary and the statement goes unchallenged, the medical profession is not doing its duty. We are only at the beginning of this campaign of education, yet much has already been accomplished in the spread of knowledge concerning tuberculosis and a good start made in public instruction in sexual hygiene.

The great crusades against medical

frauds, of all kinds, have been persistently pushed during the year. The agitation against patent medicines and the successful war for a pure food bill have enlightened the public in a great measure, so that the people understand these matters as never before.

The American Medical Association has enjoyed the most prosperous year in its history. Its membership has increased steadily and its Journal has so improved that every physician in the country having a grain of patriotism, should be proud of it. There never was before such a meeting of the association as the one at Boston, where 4,700 physicians were registered. The Toronto meeting of the British Medical Association was also an important event of the year.

Fees for life insurance examinations, the evils of contract practice, the teaching of medical ethics, and the vexing details of reciprocity are some of the topics in medical sociology which have received attention.

The number of medical students in the country has slowly but steadily decreased since 1903. In 1906, they were fewer by about 800 than in the previous year. Standards are undoubtedly being advanced—in reality, as well as in the pages of the announcements. The dedication of the new medical buildings at Harvard marks an epoch in equipment for medical teaching.

What about ourselves, here in Michigan? Of the 4,750 physicians in the state, 1826 were paid up members for the year, a substantial increase over 1905. At the annual meeting there was a larger registration than at any session since the one in Detroit, in 1903. The entertainment by the Jackson County Society was lavish and important work was done.

With some lamentable exceptions, the enthusiasm in the various county societies has been evident and the reports of

the secretaries have been, on the whole, encouraging. An event of unusual interest was the visit of Dr. J. N. McCormack, who found much to commend and not a little to criticise in our organization. It is yet too early to judge of the results of his meetings, but if we accomplish one-half the ideals set before us by that genial optimist, 1907 will be a banner year.

A review of the past year, even a short and imperfect one, would be lacking were no mention made of those who have left us never to return. Our society has sustained a great loss in the death of William James Herdman, who for the past year, has so ably represented the first district on the Council. There have been fewer deaths than usual among the prominent medical men of the world. Mention should be made, however, of such eminent Americans as Dunning, Henrotin, Fowler and Doremus. England lost Beale, the clinician; Germany, Nitze, the inventor of the cystoscope; de Wecker, the ophthalmologist, and Schaudinn, the discoverer of the spirochaete pallida; France, the famous professor of legal medicine, Brouardel.



**Medical Liars** are of various kinds, but because of the increased standards of education and the general uplifting due to the improved morale of the profession, they are yearly becoming fewer in number. At least this is the view which is expressed by Carstens in his presidential address before the Mississippi Valley Medical Association. We hope and believe that this optimistic view is correct.

Speaking at the annual meeting of that association at Hot Springs, last month, Dr. Carstens referred to prevaricators of various kinds, mentioning especially the pious liar, the specialist liar, the fee-splitting liar, the case-reporting liar, the statistical liar and the recommendation-for-pay liar.

To name them is to instantly recognize them, but they are so well described in the address that a few excerpts will prove interesting.

"The great men of the medical profession are working unselfishly for the good of the race. The moral tone has been wonderfully elevated. The liars in our own organization have been diminished wonderfully and with a higher standard we hope will soon eliminate them entirely.

But there are still some liars in the medical profession, and in my experience there are few among the young members of our calling. Some of these liars are of the pious order. They regularly attend church. They are very busy, they cannot get there until just when the prayers start. They can only walk half-way down the aisle and stand so that the whole congregation can see them until the prayer is finished.

Another of these pious varieties also goes to church late and walks to the front pew and drops down like a bag of flour, with the air of utter exhaustion. Poor fellow, he works so hard!

Another variety of liars is the man who claims to be a specialist. If he claims to be a surgeon, he treats typhoid fever and pneumonia if the patient is wealthy; he even resorts to treating measles and cholera infantum if the grandfather is a millionaire. Some so-called specialists often take the bread and butter out of the mouth of the general practitioner by attending a case of confinement, because they brought the mother into the world, or give some other excuse.

A most annoying kind of liar, that some of us meet with, are those who bring their wife, daughter, mother, or brother to a specialist who takes great pains and delight in relieving them, of course, without accepting a fee. After six months or a year the same physician brings in another patient who is very poor and cannot pay a cent to the specialist, but his good intention is appreciated. Another year or two he will probably send another patient who pays a very small fee. After a little while, however, the specialist finds that his friend takes a patient to his rival who pays a commission, and in a little while takes another. When formerly he had only one case a year all at once he has four or five cases a year that require treatment by a specialist, and where formerly his patients were so poor, all at once his patients become wealthy. They can pay good fees.

Another variety is one who always gets up,

when a peculiar and rare case is reported, and says that when he was a practitioner up at Fox Creek he had exactly such a case. Of course, men with large experience see all kinds of cases, and when such a statement is made it is not always a lie, but some who say this so often are soon marked.

There are other liars, who do eighty-seven operations of vaginal hysterectomy for cancer without a recurrence; or some who had three hundred and nineteen cases of pus tubes without a death. We know them all. We know some of the liars who, for a reasonable compensation, will write and recommend loudly the wonderful efficacy of the compound extract of cats' livers.

And others who have cured so many hundred cases of consumption with that wonderful new preparation manufactured by the Q. X. & Co., and there is that other liar who has been able to abort a case of typhoid fever and bring the patient around in three days.

Then there are those who call every case of sore throat, diphtheria, which they cure in 24 hours, before they have had time to report it to the health officer. There is that other dangerous and ignorant liar who never has a case of diphtheria, but only quinsy and sore throat.

Fortunately, the liars are getting fewer. The little humbugs and practices are recognized by the profession. In the county society is the place where everybody finds his exact level and the liars are spotted and they soon reform or cease to be of importance."



**The Committee on the Study and the Prevention of Tuberculosis** has been organized and begun work. The following bulletin has been issued and should receive attention at the next meeting of each county society.

#### BULLETIN NO. 1.

January 1, 1907.

**Committee on the Study and Prevention of Tuberculosis**

OF THE

MICHIGAN STATE MEDICAL SOCIETY.

To the Officers and Members of the County Medical Societies:

Your attention is respectfully called to the following resolution adopted at the Forty-first



Annual Meeting of the Michigan State Medical Society, held at Jackson, May 23, 24 and 25, 1906:

"Whereas, the study and prevention of tuberculosis is one of the greatest problems to be faced and solved largely through the agency of the medical profession; therefore, be it

Resolved, That a permanent committee, to be known as the "Committee on the Study and Prevention of Tuberculosis," be established by the Michigan State Medical Society, said committee to consist of five members to be appointed by the President of the Society. The duties of said committee shall be to report annually, and from time to time through the columns of the State Medical Journal, on the year's progress along the lines of study, prevention, treatment, and cure of tuberculosis, together with economical and sociological aspects of the disease; to place this information before the County Medical Societies; to co-operate in every way possible with National, State or Local societies and associations for the study and prevention of tuberculosis, and with all local, state and national Boards of Health, to secure the attainment of the same ends—the prevention, relief and cure of tuberculosis."

The committee appointed in accordance with this resolution is now organized and ready to take up the work assigned. Owing to the importance and wide range of interests covered by the resolutions, it was deemed advisable by the President and Secretary of the State Medical Society to increase the committee from five to seven members.

The members of the committee as appointed and the division of labor tentatively suggested for effective work are as follows:

Dr. W. E. Coates, Chairman, Onkama.

Organization work; Societies for the Study and Prevention of Tuberculosis; sanatorium treatment.

Dr. George Dock, Ann Arbor.

Diagnosis; general treatment; medicinal, hygienic, dietetic.

Dr. Casper K. La Huis, Kalamazoo.

Organization work in Southwestern Michigan; special work to be assigned.

Dr. E. L. Shurly, Detroit.

Therapeutics of tuberculosis.

Dr. P. M. Hickey, Detroit.

"X Ray" in diagnosis; organization work.

Dr. Alden H. Williams, Grand Rapids.

Pathology of tuberculosis; organization work.

Dr. F. D. Harkin, Marquette.

Organization work in upper peninsula; special work to be assigned.

During the year 1905, 2,656 deaths were reported in Michigan from all forms of tuberculosis by the Michigan State Board of Health; from January 1, 1901, to December 31, 1905, a total of 12,560 deaths occurred, an average of 2,512 deaths per year for the five-year period from tuberculosis—a disease which modern medical science says "can be prevented," "can frequently be cured" if recognized early and proper treatment be instituted.

What can we, members of an organized medical profession, do as individuals to stop the ravages of the "Great White Plague" in Michigan—what can our County Medical Societies do—what can our State Medical Society do? These are the problems confronting the Committee on the Study and Prevention of Tuberculosis of the State Society.

Whatever is done in Michigan should be done through the united and organized medical profession asserting itself as a leader and teacher of the people—teaching the people in simple language the cause, methods of prevention, restriction and treatment—in this way, and only in this way, can we as a profession rise to the full nobility of our high calling.

As a working basis, subject to modifications from time to time, the Committee on the Study and Prevention of Tuberculosis requests the co-operation of the officers and members of the County Medical Societies, also the public at large, in the following campaign against tuberculosis in Michigan.

#### Plan of Campaign.

Each County Medical Society is requested at the earliest opportunity to appoint a special County Committee on the Study and Prevention of Tuberculosis, or to assign this work to the existing Committee on Legislation and Special Work, if a special committee is not desired. Every committee so appointed is requested to communicate at once with the chairman of the State committee.

The work outlined for each County Committee is as follows:

1. Obtain an accurate census during the month of March, 1907, of the recognized cases of tuberculosis actually under treatment by members of the local societies or by practicing physicians of

all schools in the country or counties where the society is located. These figures are desired to obtain accurate data on the number of recognized cases in the State. The statement is frequently made that "15,000 to 30,000 cases of tuberculosis exist in the state"—it is desired to prove or disprove this statement, if possible.

2. Arrange that the County Medical Society devote one or more meetings to the medical discussion of some phase of the tuberculosis problem during the months of January, February, March or April, 1907; reports of meetings and topics discussed to be sent to the State Committee, also a digest of papers, if possible.

The topics suggested for these meetings to be as follows: Early diagnosis, tuberculin test, laboratory diagnosis, "X Ray" diagnosis; heredity in tuberculosis, tuberculosis in childhood; surgical tuberculosis; tuberculosis of various organs, lungs, pleura, lymph glands, liver, kidneys, bladder, supra-renal glands, uterus, tubes and ovaries, peritoneum, pancreas, spleen, heart, brain, skin and other organs and tissues; occupation and tuberculosis, e. g., farmers, housewives, clerks, factory hands, miners, mechanics, engineers, etc.; tuberculosis among the rich, the middle classes, the poor—influences of environment, intemperance, social status and financial conditions bearing on the tuberculosis problem; climatic, home and sanatorium treatment of tuberculosis.

3. Arrange for a series of public meetings under the auspices of the County Medical Society for the presentation to the public at large of the tuberculosis problem in popular lectures; these meetings to be held during January, February, March and April, 1907, and continued from time to time.

Topics to be discussed at public meetings: The causes, direct or indirect, of tuberculosis; methods of prevention, destruction of sputum, care of eating utensils used by patients, disinfection of handkerchiefs, bedding, clothing, rooms, houses, etc., of patients; promiscuous kissing, expectoration, flies, bedbugs, cockroaches, etc., as means of spreading infection; bad housing conditions, poor ventilation, improper and badly cooked food, fear of fresh air and sunlight in the homes as indirect causes of tuberculosis; treatment through proper feeding, rest, open air, avoidance of patent medicines and excessive drugging with cough syrups—that there is no short cut to recovery through the use of medicine; months and years of most careful living needed to cure the disease or prolong life; thousands of cures by hygienic, dietetic methods

where disease is recognized early to be strongly emphasized; prevention of tuberculosis in the shop, factory, office, store, public conveyance, public buildings and streets.

Any public meetings so held to be held if possible through existing agencies, churches, lodges, labor unions, humane societies, literary clubs, civic improvement clubs, benevolent and charitable organizations, public and parochial schools, young people's church societies, etc.

These meetings to be addressed by medical speakers from local and outside sources, also by prominent men of the community, lawyers, preachers, priests, business men, whose word and standing would carry weight among the people.

Reports of these meetings, abstracts of addresses delivered are to be published in local newspapers of the county and vicinity—this may shock our sensibilities regarding medical ethics, but the methods of popular propaganda must be adopted by the medical profession if the people are to be taught the truth regarding tuberculosis. Newspapers containing reports of meetings are to be sent to the State Committee.

4. The County Society Committee is requested to send a list of available medical or lay workers interested in the tuberculosis problem, who are good or fairly good speakers, to the State Committee, provided these speakers would go to adjoining towns or cities to deliver addresses on tuberculosis—all legitimate traveling expenses to be paid by the society or organization holding the meetings, unless speakers are willing to meet their own expenses.

5. Information is to be furnished the State Committee as to local efforts of boards of health in cities, towns and villages to prevent and restrict the spread of tuberculosis in the territory of the county society; also data as to local provisions for caring for tubercular patients in public or private hospitals, poorhouses, jails, reformatories and penitentiaries.

6. Through the County Committee, leaflets, pamphlets and circulars bearing on the tuberculosis problem are to be distributed among the members of the county society who are requested to distribute same to their tubercular patients. These leaflets, etc., are to be printed by the County or State Medical Society, or obtained from the State Board of Health, local Boards of Health or through the agency of the National Association for the Study and Prevention of Tuberculosis.

7. Local libraries are to be requested to secure popular works on tuberculosis for public reading, e.g., "Tuberculosis and Civilization," by Huber. Any books of this nature are to be selected and recommended by the County Committee whenever possible.

8. An important feature of the work of the County Committee will be to secure the organization of a local "Society for the Study and Prevention of Tuberculosis," should local conditions warrant; otherwise, to use all existing agencies for spreading propaganda regarding tuberculosis, its prevention, early recognition and treatment.

All special Anti-tuberculosis societies formed, or existing local agencies through which work could be carried on, are to be reported to the State Committee.

9. The co-operation of the County Committee is desired in obtaining a list of articles on tuberculosis published by members of County Societies; reprints of articles printed during the last five years are especially desired, though earlier publications are valuable from a historical and often from a clinical standpoint, showing as they do the part taken by their writers in one of the world's great movements.

10. The County Committee is especially urged to support all legislative efforts directed toward the restriction and prevention of tuberculosis and for the relief of indigent sufferers from the disease through the establishment and adequate support of state or municipal sanatoria for the treatment of tuberculosis.

The erection and maintenance of private sanatoria under competent medical supervision for the care of these sufferers capable of paying for private treatment should receive the moral and professional support of the various County Committees and the members of the societies represented.

The efforts of the County Committee should be especially exerted in securing the compliance of members of the County Medical Society with the law requiring reports of all cases of tuberculosis to be made to local health officers; also to securing better and more accurate returns regarding tuberculosis as a cause of death.

The "Plan of Campaign" outlined may seem Utopian—it cannot be carried out without the support of every officer and member of each County Medical Society; even then, the work must be carried on for years rather than for weeks and months.

Flick has said: "If the knowledge now at our disposal could be practically applied by everyone, tuberculosis could be stamped out in twenty-five years."

If this ideal is to be attained, it will only be accomplished by public education through the rank and file of the medical profession—the hand of the medical man guiding and directing the movement.

*For the Committee.*

W. E. COATES, Chairman.



**The Committee on "Contract Practice,"** provided for at the Jackson meeting of the society, has been appointed by President Stockwell as follows: T. S. Langford, Jackson, chairman; A. S. Kimball, Battle Creek; H. B. Garner, Traverse City; T. E. DeGurse, Marine City; E. H. Flynn, Marquette.



**Dr. William James Herdman**, of Ann Arbor, Councilor for the First District, died on Friday, December 14, 1906. By the death of Doctor Herdman, the Washtenaw County and the State Societies have sustained a very great loss. An obituary notice, by one of the deceased's close friends, will appear next month. Memorial exercises were held at the Sarah Caswell Angell Hall by the Medical Faculty of the University on December 17th, at 10 a. m. President Angell, Dean Vaughan and Dean Hutchings of the Law Department, spoke, and resolutions, as adopted by the faculty and the senior class, were read. The funeral services, held at the Presbyterian Church, at 2 p. m., were largely attended. The State Society was represented by Councilors Burr, Small, McMullen and Bulson and Secretary Schenck.

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### Book Notices

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**Surgery: Its Principles and Practice.**—In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S., Eng. and Edin., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Phila. Vol. I: Octavo of 983 pages, with

261 text-illustrations and 17 colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

Those who have been looking forward to the appearance of the system of surgery, edited by Professor Keen of the Jefferson Medical College, Philadelphia, will not be disappointed when they receive the first volume, which appeared during the month. The work is to be complete in five octavo volumes, uniform in binding with many of Saunders' books. The contributors include many of the brightest and most active of the English speaking surgeons, for the most part writers of experience, all men of authority. Each volume will contain about 1,000 pages and the illustrations will be both original and numerous.

The first volume contains 22 chapters dealing with general surgical principles and special infections. The book opens with an excellent review of the history of surgery by Mumford of Harvard. Crile contributes 30 pages on surgical physiology, containing many new facts, both scientific and practical, not found in any other book. Blood pressure apparatus and methods receive special attention. The last chapter on wounds, also by Crile, contains his theories and treatment of shock and collapse. The newer teaching as to the uselessness or even harmfulness of strychnine, etc., in the treatment of shock—teaching, which we believe is substantiated by abundant proof—is clearly set forth.

Hektoen's chapter on infection and immunity, in scientific value, is far above the usual chapter on these subjects.

Bland Sutton writes the chapter on tumors. The text is good. The illustrations, however, of this section, are not up to the high standard of the rest of the work.

Adami of Montreal, writes a most suggestive section on inflammation, from which the reader gets many new thoughts.

Space forbids mention of the other chapters. It is to be noted, however, that throughout the book, the very latest points, such as the spirochaete pallida, Bier's hyperemia, and opsonic therapy have been included. A commendable feature is the bibliography at the end of each chapter.

If the other volumes maintain the high standard set by the first, as there is every assurance will be the case, the work will be the best English system of surgery. The later volumes will be reviewed as received.

**International Clinics.**—Vol. III. Sixteenth Series. Edited by A. O. J. Kelly, A. M., M. D. 302 pages, 26 illustrations, cloth, \$2.00. Philadelphia, T. B. Lippincott Company, 1906.

This volume contains four papers on treatment, dealing with acute pleurisy, bronchitis, dilatation of the heart and syphilis; eight papers on medicine, treating of auto-intoxications, gastro-succor-rhea, the rashes of typhoid, the irregular heart, the diagnosis of chronic joint affections, pulmonary tuberculosis, milky urine and life in the Antarctic from a medical point of view; eight papers on surgery, including the hyperemia treatment of swollen joints, surgical complications of pneumonia, inguinal hernia, inguinal hernia in the female, peritoneal adhesions, hemorrhagic diathesis complicating surgical work, surgical results following improper feeding, and disorders of the umbilicus; four papers in obstetrics and gynecology, dealing with tubal pregnancy, the use of forceps in deep transverse arrest of the head, and the pelvis of lame women; one paper in rhinology, entitled "Clinical Rhinometry: Functional Examination of the Nose;" one paper in otology, entitled "Primary Thrombosis of the Jugular Bulb;" one paper in pathology on "Leukemia and Sarcomatosis."

We have given this extended list of the contents of the volume that those unfamiliar with "International Clinics" may judge of their scope. Practically all of the papers are prepared by men of reputation and are authoritative.

**Essentials of Medical Electricity.**—By E. R. Morton, M. D., C. M., Medical Officer in charge of the Electrical Department of the London Hospital. 5x7 in., 192 pages, 11 plates and 70 illustrations. Cloth, \$1.50. Chicago, W. T. Keener & Company, 1906.

As is indicated by the title, the author has collected the main points in the theory of electrical currents and thus prepares the student for the intelligent application of the same. He has done this in a logical and systematic manner. Seventy pages are then given on the physiological action, electrical diagnosis, electricity in surgery, general therapeutics and special therapeutics. The book is a useful one for the beginner along these lines.

**A Compend of Genito-Urinary Diseases and Syphilis.**—By Charles S. Hirsch, M. D., Assistant in the Department of Genito-urinary Diseases in Jefferson Medical College Hospital. 350 pages, illustrated. Cloth, \$1.00. Philadelphia, P. Blakiston's Son & Co., 1906.



This is a new volume of this popular series, and is one of the best. The author, in covering the subjects, has not sacrificed clearness to space, as is often done in books of the kind. Its teaching is up-to-date and conservative. We believe the method of arrangement in this book is preferable to that by questions and answers, used in some of the other volumes of this series.

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**Diet in Health and Disease.**—By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London, W. B. Saunders Company, 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

The new edition of this handbook will scarcely need any recommendation to the practitioner who has had previous experience of its usefulness. The work is very comprehensive, covering not only the subject of special diet for almost every imaginable special condition of health and disease from the practical point of view; but also the chemistry and physiology of digestion, the chemistry and classification of foods and beverages, and their adulterations; the methods of diagnosis by means of diet, etc. The literature of scientific research on these subjects has been carefully covered down to the date of issue, and briefly, but clearly, abstracted in such chapters as those on the chemistry of digestion and metabolism, the food value of alcohol, and other subjects concerning which new work is constantly being done and opinions are conflicting and often changed.

Certain chapters seem to the reviewer unusually complete and good—notably those on infant diet and milk modification, and on diseases in which diet is a special factor. Perhaps the chief value of the book to the practitioner will lie in the fact that it contains a collection of tables of foods, food values, special diets, army rations, etc., arranged for ready reference, such as is not, to our knowledge, to be found in any other one-volume hand-book in the English language.

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**Prevalent Diseases of the Eye.**—By Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London, W. B. Saunders Company, 1906. Cloth, \$4.50 net; Half Morocco, \$5.50 net.

Into the already long list of excellent treatises in Ophthalmology this work fits admirably. It has been the author's purpose, in which he has succeeded, to present the more prevalent diseases of the eye in a manner suitable to the needs of the general practitioner; the latter has neither the apparatus nor the experience necessary for exhaustive examinations of the eye, either in health or disease, but he has need for a book which concisely presents the more simple tests of function and aids for diagnosis of diseased conditions and with the help of this work he may learn to differentiate the more serious affections from those which fall within his practice and which he should be in a position to treat competently.

The style and method of presenting the subject matter are most interesting throughout, with clearness of expression a prominent characteristic. Among the individual chapters the one devoted to general observation upon methods of examination which are available to the general practitioner and upon diagnosis are particularly good, and if the advice there contained is carefully followed, many errors in diagnosis will be avoided. Of special commendation also are the chapters on glaucoma and cataract, the differential diagnosis of which is so important. The description of iritis in its various forms anatomically and etiologically, is well arranged for a clear working understanding of the condition. The chapters on anomalies of refraction, muscular anomalies, together with that on injuries to the eye and its appendages, are excellent.

Treatment is given fully and concisely, and recommends what the author personally considers best adapted to the conditions in hand. Typographically the work is excellent, the paper, type, and especially the illustrations are all that could be desired. Altogether the book admirably fulfills the purpose for which it was intended, a clear, concise treatise of the more prevalent diseases of the eye, designed especially for the general practitioner, and as such, is to be thoroughly recommended.

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**The American Illustrated Dictionary.**—All the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry and kindred branches; with over 100 new tables. By W. A. Newman Dorland, M. D. Fourth Revised Edition. Octavo of 836 pages, with 293 illustrations, 119 of them in colors. Philadelphia and London, W. B. Saunders Company, 1906. Flexible Morocco, \$4.50 net; thumb indexed, \$5.00 net.

In preparing this dictionary, the author has attempted a middle course between the large, more

or less unwieldy lexicon and the abridged students' dictionary, avoiding the disadvantage of each. We think that he has succeeded admirably.

Besides the ordinary dictionary matter there is much information arranged in the form of tables. The illustrations are good.

The fourth edition contains some 2,000 new words, additions made necessary by the rapid increase in the medical vocabulary. Many of these words are in the domain of serum therapy.

The flexible binding is an advantage.

We recommend the work for general use.

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**The Practitioners' Visiting List for 1907.**—The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years. Price, \$1.25. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

The text portion of The Practitioners' Visiting List for 1907 has been thoroughly revised and brought up to date. It contains among other valuable information a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

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**The Physicians' Visiting List.**—Price \$1.00. Philadelphia, P. Blakiston's Son & Company.

This well known visiting list, which has been issued regularly for 55 years, is out for 1907. Its arrangement is such that a minimum amount of bookkeeping is necessary. The dose table has been revised in accordance with the new U. S. Pharmacopœia. It may be had to record 25, 50 or 100 patients each day.

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**Saunders' Pocket Medical Formulary.**—Eighth Edition, Thoroughly Revised, Enlarged, and Adapted to the Eighth Revision of the U. S. Pharmacopœia. By W. M. Powell, M. D., Philadelphia, W. B. Saunders Company, 1906.

This is one of the most useful of the smaller formularies. It contains prescriptions from the best American authors, arranged according to diseases. A thumb index makes easy reference possible and there are sufficient blank pages to enable one to keep a list of his own favorite formulas. Much additional information is contained in an appendix, one of the best sections of which, the "Surgical Remembrancer," contains many pithy bits of advice, alphabetically arranged. Useful diet tables are also included.

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**A Text-Book of Obstetrics.**—By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Fifth Revised Edition. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; half morocco, \$6.00 net.

Hirst's Text Book of Obstetrics is deservedly one of the most popular works on the subject. It first appeared in 1898 and since then, there have been five editions. It has therefore been kept thoroughly up to date, each edition giving the results of new work. The teaching throughout is in accordance with the well known conservative ideas of the author. The chief changes in the edition are in the sections on puerperal infection and the toxemias of pregnancy.

Some of the factors which have contributed to the success of this book are, we think, the lucid style of the author, the systematic arrangement, the excellent illustrations and an index which makes ready reference easy.

It is undoubtedly one of the two American books on obstetrics which are the best. It is well printed, well bound and is to be recommended for both students and practitioners.

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#### Books Received.

**A Syllabus of Materia Medica.** Compiled by Warren Coleman, M. D. Third Edition. New York, William Wood and Company, 1906.

**Proceedings of the Connecticut State Medical Society, 1906.** One Hundred and Fourteenth Annual Convention. Edited by Walter R. Steiner, M.A., M.D., Secretary, and published by the society, 1906.

**Grayson's Laryngology. The Diseases of the Nose, Throat and Ear.** By Charles P. Grayson, M.D. New (2nd) edition. Lea Brothers and Co., Philadelphia. (Review next month.)

## THINGS ABOUT DOCTORS WHICH DOCTORS AND OTHER PEOPLE OUGHT TO KNOW.

J. N. McCORMACK, M. D.

Ladies and Gentlemen:—Once or twice for almost every working day for five years, I have stood before audiences of people in some part of the United States to discuss this question with them. I say discuss it with them because at the conclusion of my remarks everywhere, as I trust will be done here this evening, there has always been a frank expression of opinion from the floor by representative laymen in the audience, as to how they view this reform work which my profession has undertaken. In the course of these frank discussions, I have been able to make a study of what the people think of my profession in all parts of the country. This has never been possible to any other man before. It is in the light of this large and most profitable experience that I am here to take up the subject with you.

I was first induced to undertake this work because of an experience which came to me as a public official. For twenty-seven years I have been a member, and for twenty-five years Secretary, of the State Board of Health of Kentucky. I wrote the first medical law of that state, and since it was put upon the statute books have licensed every doctor in Kentucky. For twenty-seven years I have represented my profession before the legislature of my state in the interest of health and medical legislation. During most of this time I have been a member of the National Committee to look after the same interests before Congress. So that, during all of my professional life, I have been brought constantly in contact not only with medical men, but with representative laymen of the official class.

I started out in life with the idea that I had joined a very great and highly respected profession, but when I came in contact with that first legislature in Kentucky, twenty-seven years ago, I was very soon made aware of the fact that my profession was held in such low esteem by that body, that for it to support any measure pending before it, lessened the chances for passing the bill. This was a great surprise to me, but it was soon explained when senators and legislators from all walks of life, great men, fair men,

who wanted to do justice to every class of their constituents would say to me every day, "Doctor, this bill you ask us to pass looks to be fair upon its face, and in the interest of the people, but I have very little confidence in doctors. There is only one trustworthy doctor in all my county, and he is my family physician. He has told me over and over again that he was the only doctor in all that section who could be trusted. I know he told the truth because he told me confidentially, and asked me not to speak of it." Of course I didn't get any legislation from that body. On my return two years later, I would find another representative from that particular county and learn from him that there was another equally honest physician in that section—his family physician—and all the rest, including the adviser of that first member, could not be accepted as trustworthy. In this way I soon learned that twenty-seven years ago it was the custom in Kentucky for doctors—not all of them—but nearly all of them, sufficient to create a public opinion—to speak in habitual terms of distrust and criticism of the other doctors of the community. The result was that one man stood high with a few people, but the profession, as a whole, occupied a very low place in the public estimation.

I was faced with the condition of public sentiment arising from this evil every day in my public health work. I found that two physicians of a community who needed each other's help every day, as no other two men could (they ought to have been partners—at least co-laborers, and been engaged in joint study) were often so estranged by their petty contentions and jealousies that they could not consult or co-operate in anything.

Now, in my innocence, I believed for a long time that this evil was confined to Kentucky. You have probably heard that we have some peculiar customs down there. When I came to extend my observations to other states and other sections, I found from Maine to California and from the Lakes to the Gulf, excepting a few favored localities, that this evil hung over this great profession of ours like a pall, blighting and cursing it everywhere, and cursing the people with it. I am here for this very purpose and am going to convince you before I take my seat, that this is

Note.—This address was delivered before public audiences in 22 cities throughout the state, during October and November, 1906. The text herewith published is from stenographic notes taken at the Saginaw meeting, and revised by Dr. McCormack.



of far more importance to the laity than it is to the medical profession. I then became interested to know how long this evil had existed, and found that Fra Albertus, writing in the middle ages said, "And the sons of Aesculapius, every mother's son of them, took two or three hammers in his kipsey beside the one he had constantly in use on his brethren, and the only song they ever sang was the anvil chorus." I found that it came down to us as a vicious inheritance from the ages. A few years ago, my profession realized how widespread this evil was, how disastrous it had been to its own members and to the people, and we banded ourselves together all over this land, determined to uproot this evil and cast it out from our midst, and we have succeeded almost everywhere. Unfortunately this condition has existed so long in the profession that the public sentiment created by it has outlived the evil itself. We find that even up to this day it handicaps us in securing and enforcing legislation, and the pernicious effects upon the people continue.

I am going to show you how this has affected us as a nation, first by reference to two or three instances in recent history. I know that the figures have been burned into your memories, because they were iterated and reiterated in the public press, that during our short war with Spain, we lost four of our healthy young volunteers from preventable sickness for every one dying of wounds received in battle, while the Japanese, in a much longer and more severe struggle in Manchuria, lost but one from disease for every four dying from wounds, a great difference to our disadvantage. You were also told and the figures were true, that 85 per cent of our soldiers were inmates of the hospitals during the war from preventable disease, while this was true of only 15 per cent of the Japanese. This was set down to the discredit of our profession, which was most unjust. We had at the head of our medical department through that war one of the greatest scientists ever known. But General Sternberg had no more authority than a department clerk, and his successor has none today. For this reason regiments from your state and mine had their ranks decimated, homes were desolated, and women wore weeds of mourning all over this land. My profession had apprehended this danger for years and representatives from the state appeared before the National Congress, session after session, at their own expense, and begged that our medical officers might be given author-

ity to protect our armies. They were received with scant courtesy. Even last year when my colleagues went before the Congress, with these object lessons of Manchuria and Cuba before the country, they failed. In the event of a foreign war tomorrow, we would have the same disastrous record to face, unless legislation can be secured. If time permitted, I would like to show you how the same influences have obstructed the building of the Panama Canal, how they were responsible for the epidemic of yellow fever less than two years ago, and in many similar national affairs have brought us to the verge of great public dangers, and have entailed much loss of life and the waste of hundreds of millions of dollars.

What I am trying to show you is that medical men who alone have the training and are informed on these matters, have not the authority, and those who have the authority have no training or information. Great men in other affairs, many of them are, but without the special knowledge which would make them competent in the supervision of sanitary work.

Now, this is the record that has been made for us as a nation, but bad as it is, it has been far worse and more serious for you people here in Michigan. Half the sickness that you had in the state last year—half the people that you carried to your cemeteries—were ill and died from diseases which are preventable, which doctors know how to prevent could they have your co-operation. You have fully 20,000 to 25,000 cases of consumption in Michigan today, and 2,389 deaths were reported from this disease last year. There was not a case of consumption in Michigan last year, or any other year, that was not due to the fact that the persons who had the disease got the germs of the disease into their system from some previous case. There is no other way to get it. Consumption is not inherited. Even if your father and mother died from consumption, you can, at the very worst, only inherit the kind of constitution, or soil, which makes you vulnerable to the disease. You can no more have consumption in your system without having received the seed of the disease from a previous case than you can raise corn out here on a rich Michigan farm without seed. If all the expectorated matter and other infected excretions from every case of consumption now in Michigan should be collected and destroyed until all the cases now existing have either recovered or died, there need never be another case of consumption



in this state, unless it be an imported one.

Take another disease: You had in this state last year—between sixteen and seventeen thousand cases of typhoid fever, with from 1,500 to 1,600 deaths. That is one of the most important of preventable diseases, because it is one that most affects people in the prime of life. Typhoid fever is a filth disease. There was not a case in Michigan last year, and never was, that was not due to the fact that the person who had it, got into his mouth and stomach in some way, some of the discharges from the kidneys and bowels of some one who had typhoid fever. It is not a pleasant thing to think of, but it is much worse to do it. People should know the truth and stop doing it. In cities it is often carried in the water or milk supply, in the country districts almost always by the ordinary house fly. Through one means or another you must get the poison; you must get the seed to produce a case of typhoid fever; you can no more have it unless you contract it in that way than you can raise wheat out here on one of your farms without the seed. If all of those two discharges could be collected from every case of typhoid fever as it occurs, this disease would be easily wiped from the map. And it ought to be done.

If time permitted, it would be interesting to tell you in the same way how the thousands of cases of scarlet fever and diphtheria, which occur annually in this state, ought to be prevented. Still more with cholera infantum. The average dairy man is exceedingly careless, and nearly all this great death rate amongst our children is due to impure milk. This was recognized in Rochester, New York, depots for sterilized milk being placed within the reach of every family, and they cut down the death rate of babies fifty per cent in one year. It ought to be done everywhere if our babies are worth saving, as I certainly believe they are.

I am not saying anything new to your medical men. They are as familiar with this information as am I. At their own expense they have gone before your legislature, year after year, and urged that health boards be given power to stop this death rate, and their requests have been refused. It has been said over and over again in the halls of your legislature and the National Congress that the medical profession was asking this in their own interests. Some said it was a graft on the part of the medical profession. In the name of reason what interest could the doctors of Michigan possibly have in seeking the pre-

vention of these diseases except for the public good? They live by the treatment of the sick; they have no other means of earning a livelihood. In so far as they succeed in preventing disease, they diminish their incomes, but like all of the learned professions, a large part of what we do is altruistic and in the nature of things unpaid and unselfish work. I think it is largely because it is so unselfish, so purely altruistic, that we have been misunderstood in these matters so long. Legislators found no one else asking for legislation that would decrease his business, and they could not believe that physicians would do it at their own expense, year after year. It is not known to the public that a large part of the work has always been of this kind. If Dr. Small should make a discovery tomorrow in the cure of consumption, he could not have it patented, as other citizens may, but would have to give it to the profession and without cost. He made a vow when he entered the medical profession that any discoveries he should make would be given to the public without money and without price. If he failed to keep that vow, he at once becomes an outcast. If Dr. Curtis, tomorrow, should devise an instrument that would be necessary in the practice of every doctor in the world, and which would make him a millionaire if he could patent it, he is deprived of that privilege, and in the same way is forced to make a drawing of the instrument and give it to the world. And it is this profession, animated by such unselfish purposes, which has been misunderstood in all ages, partly because of the fault of speaking unkindly of one another and largely because the work has been so unselfish it could not be appreciated. This is so surprising to me because I know more doctors than any other five hundred men in the United States. I know them in every county almost, in every state in this Union, and I don't believe any other class of men on this earth will bear more than favorable comparison with them.

The doctors of Michigan do more actual christian charity in every day and every night through the year than all the churches and charitable organizations put together. We practice what those good people preach. They tell us what to do and we do it. The leaders of my profession in such cities as Detroit, Chicago and New York walk the boards of the hospitals for two hours every morning and give the same consideration and treatment to the poor as they do, the rest of the day, to their millionaire patients. And the country doctors, the noblest specimens of God's man-

hood, when called through the rain or shine, night or day, treat the rich and poor alike. We collected the facts in my state two years ago and found that over half of the people in Kentucky never paid their doctors' bills and never intended to. We have a large colored population there, and it is against a darkey's interest to pay principal, and against his principle to pay interest, so he never pays anything. We also have a large number of white people who have adopted the same plan. Still, there is not one of them anywhere in this broad land that ever wants for medical aid. And yet it is this profession which has been so misunderstood!

It was an interesting question to me as to why an evil like this developed in such a body of men and why it continued. I began to make investigations and found that it was not confined to the medical profession; that it was common to all locations where the people lead lives apart from others engaged in similar work. Take bankers as an example. You all can remember that not many years since, wherever there were two or three banks in a community, it was considered quite the thing for the presidents or cashiers to pass on the street without speaking and for their wives not to recognize each other as members of good society. But this has all disappeared. Those banks have been organized. There is a bankers' association in this city, I know, and their organization has brought peace to themselves and prosperity to the people.

I was greatly surprised when I found the evil had always been more pronounced in the clergy even, than in the medical profession. Leading lives apart, as they did, dissensions had existed in all ages, giving rise to great wars and persecutions. I can remember in my day when there were public debates on the mode of baptism and purposes of the other sacraments, dividing families and rending communities. But in recent years this calling has been organized, and I know without asking, that there is a ministerial association in this city which meets at some pastor's study every Monday afternoon or evening to discuss the moral and religious interests of the community. Thus they have been able to advance the moral and religious interests of the community. Thus they have been able to advance the cause of religion in a way which never seemed possible before. I might give instances in other professions of which the same things are true, but it is unnecessary.

I want to turn to a pleasant picture. There is

one great calling where this evil never took root. Lawyers have lived together in peace in all the ages. You can't get two lawyers anywhere to quarrel about anything, unless you pay both in advance. They just will not do it. And how I do venerate that great profession! How different would be the history of our country if the same could be said of the physicians and the clergy. It has ruled this country from its foundation, gone into our legislature and made the laws, gone into the courts and construed them, and into the executive offices and administered them. As a careful student of our history, I doubt if any other profession would have done it so well. I question if civil liberty could have been maintained in this country without them. Had the medical profession been equally harmonious and equally wise during the formative periods of our country, medical and health boards would have been as much a part of the warp and woof of our government as the courts are. They ought to have been. A great health department at Washington, with authority and equipment for continuous scientific investigation, and for collecting information as to the cause and prevention of disease is as important to you as a judiciary department can be. A state board of health at Lansing, with its members so supported that they could devote their entire time to a similar work in your state is as important to the people of Michigan as your appellate court is. You can not have this protection until this equipment and this authority and similar facilities for investigation of the causes of disease in each locality is just as important as any court in your county can ever be. Inspection of your dairies and slaughter houses, and of your schools, and the detection of the first case of contagious disease is something that you cannot afford to neglect, no matter what it costs you. Your health officer must be so supported that he can devote his entire time to the duties of his office. No man can serve as health officer and practice medicine at the same time. You wouldn't employ him as your family physician if he required you to put your premises in proper condition. This would be a matter of economy which would pay more than a thousand dollars for every dollar it would cost. The greatest tax upon you today is what you pay for unnecessary sickness and unnecessary funerals. And until the people of your city and county realize this and order their public affairs in accordance, this unnecessary sick and death rate must go on. We know it to be true and my profession, at its own

expense, has employed me to go up and down in this land to beg the people to come to its support in this work. Now, the profession, in an attempt to accomplish this work, as I have told you, has formed a great scheme of organization based upon our system of civil government. We have an organization in every county where there is a sufficient number of doctors. I have been in conference with the doctors of this county all the afternoon in regard to it. They have been doing much good work in the past, but have promised to do it very much better in the future. In order that you may understand something about the kind of work they have taken upon themselves, I am going to put an object lesson before you as to what is going on in a great many counties in this country. In Indiana, two years ago, before an audience of physicians from ten counties, I urged that a post graduate school be established in every county, where the doctors might get together and study medicine, review their studies, the facilities for post graduate instruction to be brought within the reach of every physician in the county. Now, you realize that medical science is advancing with a rapidity unknown in any other branch of knowledge. There is not a source of information open to any doctor in Berlin, New York or any other place that is not open to every doctor in your county, and it is an effort to place a modern, competent doctor within the reach of every family in this country that we are trying to start a course of this kind in every county. I am convinced that if a doctor who has been out of college four or five years is not in some way connected with his fellows in an effort to improve his knowledge in the progress of his profession, or if he is not going off to some medical center for a post graduate course, it is only the question of time when he is going to become a source of danger to every family dependent upon him. After my talk at this meeting, the discussion was opened by a great surgeon who said: "I am happy to tell you that we have done far more in this county than you have suggested. Three years ago we induced every doctor in our county to join our association. We had two or three homeopathic physicians and took them in. We realized the importance of this work, and believed that there was no more room for three schools in medicine than there is law." He said: "In a little while, we decided to take up the post graduate work. I was selected to give demonstrations in anatomy; one of my colleagues was selected to give a course in chemistry. He went to

Chicago and took a post graduate course in order that he might be the better qualified. We decided to meet every Monday evening. We thought at first that only the doctors of the little city would be present, but it soon became so popular that when the meeting time came we didn't have a vacant chair unless some one was kept away by an emergency case. In about ten weeks, they said we were not meeting often enough, and we decided to meet twice every week, and for three years we have met here in this room, completing six courses. We have just entered upon our fourth year with greater interest than we ever had before. As the work went on, it developed that the average doctor in this county is too poor to practice medicine. My heart bleeds for a majority of the physicians of my county, for after supporting their family their income is insufficient to enable them to give their patrons the benefit of the instruction they have secured. We do not know what to do about it. We have almost been afraid to discuss it among ourselves, and we have waited for you to come to tell us what to do. As I do surgery exclusively and have an ample income, it does not affect me personally." I said to him: "You think you are telling me something that is very strange. This evil exists nearly all over this country." I am informed that it doesn't exist in this section of Michigan, but in the majority of the counties of Michigan it is just as true as it was in that county in Indiana. I said: "Is there any other county represented here where the doctors have taken up this problem and worked it out?" A doctor arose in the audience and said: "We have already worked out this question. We organized our profession and started a post graduate course, but we found a majority of our doctors were too poor to lose the necessary time, and finally someone suggested that we invite a number of business men to come and give us the benefit of their counsel. At our next meeting we had forty or fifty business men present. When the president had stated the purpose of the meeting, a great banker arose from the audience and said: 'This is one of the most alarming statements I have ever heard. There has hardly been a year since I have had a family that the life of some member of it has not depended upon the competency of my physician. The average physician in this county is crippled in his every-day life-saving work for the lack of a few paltry dollars! It constitutes a grave public danger and I think we ought to have a mass meeting and discuss this



question.' And we did have a public meeting and had a full and frank discussion. We have a fair people in this county. This evil was entirely wiped out, the new plan has been in operation now for three years, and I am satisfied that if it was submitted to a popular vote, it would be overwhelmingly sustained."

This is a matter that I like to discuss. In nearly every county there are a few prosperous physicians who mislead the people as to the whole profession. One of the great menaces to the public health in this country is poverty in the medical profession. The cost of living has almost doubled within the last ten years. The cost of equipment of the medical man has increased tenfold. It is now one of the most expensive of the vocations. What is true of us is equally true of educators, teachers, lawyers and clergy. All of these vocations are very inadequately supported. The commercial classes, the farmer and the laboring man have shared in the great prosperity of our land in a way that has not been extended to the professions. What the solution is to be, I cannot tell, but the evil ought to be recognized and discussed.

As soon as the doctors have decided these matters then I am going to urge them in this county to take up co-operative work with the other vocations. I suggest that this county association should invite the druggists to meet them in conference. The druggists are important aids to the doctors. They are good citizens. I do not know that it is true of your shops here, but the average drug store is little more than a depot for the distribution of cheap whiskey under the guise of patent medicine. With most of them, from half to two-thirds of their stock consists of such things as Hostetter's Bitters, Peruna, Swamp Root, Vinola, Mrs. Lydia Pinkham's Compound and a large number of others unnecessary to enumerate—nearly all of them cheap cocktails flavored more or less with medicines. The druggists tell me that they would like to get rid of this trade but they do not know how to do it on account of the popular demand for these things. We must co-operate with them and see if we can't rid the country of this danger. This is not only true of the whiskey preparations, but of the dopes and dangerous heart depressants which add to a very considerable extent, to the death rate of this country every year. Bromo-seltzer and the headache powders, all have the most dangerous of heart depressants as their base. Nearly all of the catarrh remedies contain cocaine. These medicines

cause sickness and increase the prosperity of the doctors. The time has come for the public to know what they are taking and physicians must lead in this work. Such preparations as Mrs. Winslow's Soothing Syrup and Baby's Friend contain large quantities of morphine. I hold in my hand a coroner's report showing the death of infants from the use of these things, and probably but a very small per cent have been reported. They have already sent enough babies to their long home so that their sale ought to be prohibited by law.

Another fault I find with drug stores is this—I believe in the same standard of morality for men and women, but unfortunately it does not obtain in this country. Half of the diseases contracted through the immorality of young men are treated by little boy clerks in drug stores. They laugh at and make a joke of these things and thus encourage immorality. These young men, having faith in what has been done for them, go out, and in a few months are married to your daughters and your sisters, and in a little while a large per cent of these women, unprotected by their own purity, are diseased. Half the surgery done for women in this country every year is traceable to this disease, and the time has come for medical men to take up this question for the purpose of protecting our women. It has become almost a great national question. The druggists often say they are receiving injustice at the hands of the medical profession. They may be. Let us meet with them in frank conference and adjust these difficulties.

Just as soon as this has been done, the medical profession ought to invite the clergy to meet them in frank conference, because the backbone of quackery in this country is in the clergy and the church press. I do not want to be misunderstood in what I am going to say on this subject. I married the daughter of a great preacher. My father's house was a preacher's home, and my own has always been. I know how the true clergy feels on this question I am going to discuss. There are two classes of preachers. The doctors have their quacks and lawyers have their shysters. I think the clergy has not recognized the disadvantage at which it has been placed in this country arising from their failure to draw the line distinctly between the true clergy and the quack preachers. A majority of the great quacks in this country have criminal records. R. C. Fowler, probably the most ignorant and successful quack this country has ever produced, was a pastor of



a church in my town, when I went there many years ago to practice. He was driven out of the ministry for gross immorality, and soon turned up in Boston as a great doctor. When in Missouri last year, I visited Welkmer's quack factory, where he makes them in two weeks, and after listening to him for some time, I said to him: "Doctor, were you ever a clergyman?" "Yes, for several years." When they are expelled from the ministry they all want to come into the medical profession. I am often asked by clergymen, why so many doctors drift away from the church? I answer that it is because they have lost faith in the personnel of the clergy. Physicians have nearly always done the practice of the clergy gratuitously, and after a doctor has lost a night's sleep with a clergyman's family, and finds a certificate in his morning or church paper from great so-called Doctors of Divinity, certifying to the benefits they have received from Duffy's Malt Whiskey, as is done every day, he cannot but feel aggrieved. We have traced them out and found that those who do these things are generally a discredit to the churches to which they profess to belong. The public and profession do not know this and hence are being mislead, and the time has come for the true clergy to speak out for the protection of the people. I picked up a paper the other day, and saw where the Rev. Dwight said that if it had not been for the use of Duffy's Malt Whiskey, he would have had to retire from the ministry. Last year one of the most consecrated old clergymen I ever knew, as good a man as ever lived in this world, who would no more think of taking a drop of liquor than would the best clergyman in this house, was treated for delirium tremens in my town. He saw the advertisement in his church paper and began taking Peruna. Not getting the desired effects, he wrote the proprietor asking him what was the matter, and was advised to take more Peruna. He did so. When a physician was called in, he found the devout old man debauched from delirium tremens. I heard the Rev. Dr. Baker say that one of the best clergymen in Ohio fell into this habit, and after being examined by a physician, the son went to the doctor and wanted to know what the trouble was, and he was told that his father had chronic alcoholism. The son said that it was impossible, because his father was a total abstainer and temperance lecturer. The physician said that he was in a condition that could not have been, had he not touched liquor. The young man said: "I know he wouldn't

take anything. He has not taken anything except from a bottle to a bottle and a half of Peruna each day." That is going on all over this country. I hold that this is a matter about which we have special information. The time has come to call in these men and take up the question and let the public be advised that this thing may be stopped.

The doctors ought to invite the good women, especially the club women and all the other organizations into this conference. If modern sanitary information is to be brought to the people, we must have the co-operation of the women. This matter regarding patent medicines ought also to be brought to their attention. Some of them would be horrified if offered a glass of beer containing 5 per cent alcohol, while they will take Peruna which is 27 per cent, and Mrs. Lydia Pinkham's Compound which is 21 per cent alcohol. I saw an advertisement the other day saying to the good women of Michigan that if they would correspond with Mrs. Lydia Pinkham, she would be glad to tell them just what to do. If you will pick up the *Ladies' Home Journal* of October 8th, last year, you will find a good picture of Mrs. Lydia Pinkham's tombstone and grave, showing that she died in 1881. And still she is engaged in selling that cheap whiskey. It might be well to obtain the advice of the clergy where you have to write to her. Your letter might have to be written on asbestos.

The doctors ought to invite the teachers of this county, the representatives of all the schools, to meet them in conference. One of your great teachers said at Battle Creek, the other day, that he considered the instruction of the children in the prevention of sickness, of more value than instruction in mathematics. I believe so. With the stereopticon to throw those germs on the screen before the pupils, it is just as easy to teach these things to the scholars as it is their a b cs. These teachers are instructing the future voters and future housewives of our land, those who will soon be administering the affairs of this country. I am sure that an appeal to them would not be in vain.

Then meet with the bar association in your city—ask the lawyers to meet with you. This is a twin profession of ours. The matter of expert testimony has become a question of great public importance. The state bar association of my state has taken it up and has decided to refer it to the national association, and so unite on many problems which these two professions

should work out.

Your mayor and your city and county officials should be invited into your conference. As soon as our public officials are convinced that this unnecessary sickness and these unnecessary deaths can be prevented, there will be no difficulty in securing their co-operation. Invite your senators and representatives to meet with you, and give them the kind of information that is necessary.

This great profession of ours must get more men into public life. The lawyers have done their work well, but we have entered on a new era, and this great profession must lead. It may not be necessary for its members to go into the legislative halls, but they must get into touch with public officials so that they may be properly educated along all these lines.

## County Society News

### SEVENTH DISTRICT.

The meeting of the Seventh District County Societies was something of a disappointment as regards representation from two of the counties of the district, Huron and Sanilac. The other two counties were well represented and the meeting was a very decided success.

An excellent paper by Dr. Breisacher on "Some Diseases of the Stomach," with methods and means of diagnosis, was instructive and entertaining. The ex-secretary and editor of the Journal, Dr. A. P. Biddle, held a clinic on skin diseases in which several interesting cases were exhibited. The program was very instructive and very much appreciated by every one present.

Dr. McCormack gave us a most excellent address in his usual lucid style and forceful manner, and I am sure every one present felt encouraged to devote himself more vigorously and courageously to following out the higher ideals of the medical life and work which we all cherish, but which are sometimes obscured by the drudgery and discouragement of actual practice.

Liberty hall was filled in the evening by an appreciative audience who listened with pleasure and close attention to the able and entertaining address of Dr. McCormack on the "Inter-relations of the Profession and the People." His discourse was a great revelation to many and many of our most highly cultivated people said, after the lec-

ture, that they regretted that only a hall full instead of the whole city had heard the presentation of the truth in regard to the many vital points touched on by the speaker.

It is probable that the next District Meeting will be held next summer in Bad Axe in Huron County, where we hope to have a good program and a full representation from all the counties.

MORTIMER WILSON, Councilor.

### CALHOUN.

The annual meeting of the Calhoun County Medical Society was the thirtieth since the organization. Drs. G. Frank Lydston and Bayard Holmes, of Chicago, had promised papers and with every assurance of a splendid program, a big audience was in attendance. For some unknown reason, neither doctor appeared and the afternoon was devoted to routine business, the only paper being the president's address by Dr. W. H. Haughey of Battle Creek, entitled "The Calhoun County Medical Society."

The election of officers for 1907 resulted as follows: President, Robert B. Gubbins, Ceresco; Vice-President, Wm. H. Riley, Battle Creek; Secretary and Treasurer, Arthur S. Kimball, Battle Creek; Delegates, W. H. Haughey, Battle Creek, and Geo. H. Hafford, Albion; Alternates, Chas. E. Stewart, Battle Creek, and Stan K. Church, Marshall.

Ten new members were admitted.

The program and banquet of the evening, at the Sanitarium, were dedicated to Dr. S. S. French, one of the three surviving charter members, our only resident charter member, and probably the oldest professional man in the State Society, as well as one of its ex-Presidents.

Dr. C. B. Stockwell, President of the State Society, was present, responding to the toast, "Future Ideals."

The next meeting will be held the first Tuesday of March at Albion.

A. S. KIMBALL, Sec'y.

### CHIPPEWA.

The Chippewa Medical Society held its annual meeting at the Park Hotel Tuesday evening, Dec. 4, and elected the following officers for the ensuing year: President, Dr. G. J. Dickinson; Vice-President, Dr. J. J. Griffin; Secretary and Treasurer, Dr. A. H. Miller; Delegate to State So-

ciety, Dr. Robt. Bennie; Alternate to State Society, Dr. W. Townsend.

After the routine of annual business was over, the retiring President, Dr. R. Bennie, entertained the society at a banquet given in the private dining room of the hotel. Toasts were responded to in a manner that would indicate as bright a future for the society as it has enjoyed prosperity in the past.

A. H. MILLER, Sec'y.

#### DICKINSON—IRON.

The fourth annual meeting of the Dickinson—Iron Medical Society was held at Iron Mountain Tuesday, Dec. 11th, 1906. The following officers were elected: President, Dr. F. Larson, of Crystal Falls; Secretary-Treasurer, Dr. H. Sethney, of Crystal Falls; Vice-President, Dr. Libby, of Iron River. Two new members were received: Dr. Ferris Summerbell, of Norway; Dr. Carl Stevens, of Norway.

J. B. BRASSEUR, Sec'y.

#### GRAND TRAVERSE.

The annual meeting of the Grand Traverse County Medical Society was held on the evening of Dec. 4, 1906, at the office of Dr. J. W. Gauntlett.

Dr. E. B. Minor read a paper on "Scarlatina," and Dr. L. F. Sipher one on "Measles."

The officers for 1907 are: President, Dr. J. M. Wilhelm; Vice-President, Dr. O. E. Chase; Secretary-Treasurer, Dr. M. M. Canavan. Board of Censors—Drs. Arthur Holliday, William J. Shilliday and F. P. Lawton.

Meetings are held every two weeks.

M. M. CANAVAN, Sec'y.

#### IONIA.

The Ionia County Medical Society has finished its fourth year and begun its fifth in healthy, robust condition. We have had four (quarterly) fine meetings, each one an improvement over the preceding one. Attendance grew larger—new members added at each meeting. We have furnished our own entertainment, papers, clinics and reports and have not found it necessary to import additional help.

The society has awakened to the fact that we

have in and among ourselves the necessary qualities and qualifications for a wide-awake, progressive medical society. We have as fine a band of deep thinking, hard working, clear headed medical men as it has ever been my privilege to meet.

The fourth meeting of the year was an excellent one. The resident physicians of Ionia furnished the entertainment at Hotel Barclay, after which we adjourned to the new Town Club Rooms, where the business of the year was closed up and a start made for another year.

The officers chosen were: President, Dr. J. F. Pinkham, Belding; 1st Vice-President, Dr. C. B. Gauss, Palo; 2nd Vice-President, Dr. P. L. Hoag, Ionia; 3rd Vice-President, Dr. F. W. Martin, Portland; 4th Vice-President, Dr. W. J. Wilkerson, Orleans; Secretary-Treasurer, Dr. C. S. Cope, Ionia; Auditors, Dr. J. McCann, Ionia, and Dr. J. E. Furgeson, Belding; Delegate, Dr. C. S. Cope, Ionia; Alternate, Dr. W. E. Ogden, Ionia.

Four new members were admitted: Drs. B. O. Ericsson, George Moore, H. O. Haynes, of Ionia, and Dr. J. D. Bradfield, of Orange.

Next meeting will be held at Belding January 10, 1907.

C. S. COPE, Sec'y.

#### MANISTEE.

The Onkama Heights Sanatorium Association was organized March 16, 1906, its medical organizers being physicians in good standing and members of the Manistee County Medical Society.

Dr. W. E. Coates, the medical director of the Sanatorium, is the Chairman of the Tuberculosis Committee of the Manistee County Medical Society. Until 1903, when he removed to Michigan, Dr. Coates had been for ten years connected with graduate and under-graduate medical college laboratory teaching in Chicago, his last position being Adjunct Professor of Pathology at the College of Physicians and Surgeons, Chicago.

The aim of the association is to conduct on a self-supporting basis, a semi-philanthropic institution.

The Sanatorium will be conducted as a "Tent Colony."

The following benevolent funds have been established, to which public subscriptions are invited:

Endowed or Free Bed Fund.

Nominated Bed Fund.

Building Endowment Fund.

Clinical and Research Laboratory Fund.

## General Endowment Fund.

The charge for board, nursing and medical attendance will be kept as low as is consistent with good business policy—the aim being to make the association self-supporting, either through direct income from the patients or indirect income from the various benevolent funds.

L. C. KENT, M. D.

C. A. CARPENTER, M. D.

M. H. NESTER, M. D.

W. W. ARSCOTT, M. D., Sec'y.

Committee.

## OTTAWA.

The December meeting of the Ottawa County Society was held at Zeeland. The meeting was given up to a discussion of pneumonia, colds and influenza, all timely subjects. By vote of the society the publication of a paper on Pneumonia by Dr. T. G. Huizinga, of Zeeland, was requested.

E. D. KREMERS, Sec'y.

(The paper will appear next month.—Ed.)

## SHIAWASSEE.

The regular monthly meeting of the County Society was held in the City of Owosso, Dec. 4, 1906, at 3 p. m. Number of members present, 10.

In the absence of President and Vice-President, Dr. D. H. Lamb was called to the chair, and presided over the meeting.

The annual report of the Secretary and Treasurer was read and received. The report showed a membership of 39, a loss of 6 members during the year.

Dr. Lamb introduced Dr. John V. Frazer, of Lapeer, who read a very interesting paper on "Why Doctors Are Poor, and the Remedy," which will appear in an early issue of the Journal.

Dr. A. M. Hume extended a cordial invitation to the society to hold its next meeting at his office, which was accepted.

Election of officers for the ensuing year resulted as follows: President, Dr. T. N. Yeomans, Bancroft; Vice-President, Dr. Walter E. Ward, Owosso; Secretary and Treasurer, Dr. James A. Rowley, Durand; Directors, Dr. E. J. Carney, Durand; Dr. William Shaw, Morrice; Dr. J. O. Parker, Owosso; Delegate, Dr. J. N. Eldred, Chesaning; Alternate, Dr. C. McCormick, Owosso.

J. A. ROWLEY, Sec'y.

## ST. JOSEPH.

The St. Joseph County Medical Society met at Three Rivers, December 18, 1906. In the absence of President Cameron, the chair was filled by Dr. Marden Sabin, of Centerville. The attendance was not what it should have been. Dr. Sabin read an interesting paper on the "Relation of the Doctors to the County Poor."

The following were elected for 1907: President, Dr. L. K. Slote, Constantine; Secretary, Dr. J. R. Williams, White Pigeon; Treasurer, Dr. T. J. Haines, Three Rivers; Delegate, Dr. J. R. Williams, White Pigeon; Alternate, Dr. Blanche M. Haines, Three Rivers; Executive Committee, Drs. Knowles, Haines, and Sabin.

J. R. WILLIAMS, Sec'y.

## PRESQUE ISLE.

At a special meeting of the Presque Isle Co. Medical Society, held at Onaway, Nov. 18th, 1906, the following resolutions were read and adopted:

*Resolutions of Condolence.*

Whereas, God, in His infinite wisdom has seen fit to remove from our midst our highly esteemed President, Dr. DeWitt C. Howell.

Whereas, by his death, the County of Presque Isle has suffered an irreparable loss, and many of its citizens are deprived of the competent services of one in whose hands frequently were placed the lives of their beloved ones, resting assured that their confidence was not misplaced.

Whereas, the Presque Isle County Medical Society has lost its most untiring and energetic member, whose efficient services and counsel it has so often solicited and whose quick response never failed when duty called;

Therefore Be It Resolved, that we, the members of the Presque Isle County Medical Society, do deeply regret that it was the will of an Almighty Providence, to call from his labors our beloved friend and associate,

Resolved, that we most sincerely sympathize with his bereaved family, commending them to that Father who knoweth best in all things and doeth them well.

Resolved, that these resolutions be spread on the records of this Society, that a copy be sent to the family of the deceased, and that copies be sent to the various newspapers of the county.

JOHN YOUNG, M. D., Vice-Pres.



## Correspondence.

### *To the Medical Profession of Michigan:—*

The medical profession of San Francisco lost its medical library, the San Francisco County Medical Society Library, in the fire last spring. Most of the physicians also lost whatever private libraries they had succeeded in collecting. A committee (named below) has been appointed by the American Medical Association and by the Association of American Physicians to collect and send books to San Francisco, both for the library and for private individuals when duplicate copies are sent on.

Will you send to Dr. Arthur T. Holbrook, Goldsmith Bldg., Milwaukee, any medical books of value or bound volumes of Journals which you can spare? Fairly recent editions of standard text books, foreign text books or bound Journals (French, German and Italian) hospital reports, monographs of all sorts, books on special subjects, old classics (e. g. Trousseau, Charcot) and the Sydenham Society publications are especially desired.

Acknowledgment of all that is received will be made through the medical journals, and the books will be packed and shipped as promptly as possible.

(Signed.)

Charles L. Dana, Chairman, New York City; Frank Billings, Chicago; E. Bates Block, Atlanta; J. A. Capps, Chicago; T. D. Coleman, Augusta, Ga.; George W. Crile, Cleveland; W. E. Fischel, St. Louis; F. Forchheimer, Cincinnati; Charles L. Greene, St. Paul; Arthur T. Holbrook, Milwaukee; Geo. M. Kober, Washington; Lawrence Litchfield, Pittsburg; Rudolph Matas, New Orleans; H. C. Moffitt, San Francisco; John H. Musser, Philadelphia; William Osler, Oxford, Eng.; Henry Sewall, Denver; C. G. Stockton, Buffalo; W. S. Thayer, Baltimore; R. C. Cabot, Boston, Secretary.

## Michigan Personals

Dr. H. R. Pitz has been appointed to the staff of the Kalamazoo Asylum. Dr. Pitz is a graduate of the medical department of the University of Illinois.

Dr. G. A. Easton has located in Cedar Rapids.

Among the travelers in Europe are, Dr. E. L. Shurly and Dr. A. H. Steinbrecher, of Detroit, and Dr. Richard Leuschner, of Mt. Clemens.

Dr. J. S. Hamilton, formerly of Detroit, has accepted a position of mining physician at Painesdale.

Dr. M. E. Topping will remove, in the near future, from Fenton to Lansing.

Dr. George Dock, of Ann Arbor, was the guest of the Eaton County Medical Society at its October meeting. Dr. Dock read a paper on "Pericarditis."

At the meeting of the Jackson County Medical Society, December 6th, Dr. H. J. Hartz, of Detroit, read a paper on "The Sanatorium Treatment of Tuberculosis."

Dr. William A. Polglase, who retired as superintendent of the Home for Feeble Minded and Epileptics at Lapeer, on January 1st, has opened an office in the new Fine Arts Building, in Detroit.

At the December meeting of the Oakland County Medical Society, held on the eleventh of the month, President Stockwell and Chairman Burr were guests of honor.

Dr. George E. Chamberlain, Grand Rapids, has been appointed medical director for the State Home for the Feeble Minded and Epileptics, Lapeer, to succeed Dr. W. J. Polglase, who retired January 1st.

Dr. and Mrs. Alexander G. McLeod, Calumet, returned November 25, from an extended trip to Europe.

Dr. Millie Wilson, Detroit, has succeeded Dr. Nina Oliver McIntyre as assistant physician at the State Home for the Feeble Minded and Epileptics, Lapeer.

Dr. A. E. Gordeau, Ishpeming, has returned from Mexico.

A fracture produced by only slight violence should at once raise the suspicion of a malignant growth. In such a case a uniform dark shadow about the bone as seen in the fluoroscope is to be interpreted as a neoplasm rather than as callus, for recent callus is not opaque to the X-rays.

In the treatment of fractures of the forearm no consideration is more important than the avoidance of contractures of the fingers, by the intelligent use of splints and by means of early, active and passive movements.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**The Serum Treatment of Scarlet Fever.**—SALTYKOW reviews the whole literature of this subject, and analyzes the results reported by the various clinicians with different kinds of anti-streptococcic sera. While these reports do not agree very well, one gains from them the impression that in general the results from "polyvalent" sera—that is, antistreptococcic sera prepared according to ordinary methods—have not been especially favorable. On the other hand, men like Escherich, Bokal, Pospischill, Hanoch and Moser himself are very decided in their advocacy of Moser's serum, which is univalent against a streptococcus which Moser supposes to be to a certain extent specific for scarlet fever. The best reports for this serum come from Austria and from some of the Russian clinics, while Baginsky and Heubner see little proof of its value.

It seems necessary that it be used in very large doses—100 to 200 c. c. or more, and early in the disease, if benefit is to be obtained from it.

The results claimed for Moser's serum by its advocates are chiefly in the lessening of the toxic manifestations, such as the nervous phenomena, the heart symptoms, the rapid pulse and feeble respiration, the temperature, and the joint pains. Escherich noted remarkable results in severe cases with high fever, delirium, apathy, and green diarrhea, where the throat symptoms were slight. The effect on the manifestations of general infection, and on complications already established, is less marked. Moser claims, however, that if the serum is given early, septicemia, pemia, and nephritis are all less frequent.

Recently a serum prepared by Marpmann, in the preparation of which are used extracts of the skin, urine and blood of scarlet fever patients, with the idea of getting the specific poison rather than the streptococcus, has been given trial in Berlin and London, and some very good results are claimed.

Possible prophylactic effects are noted for the sera of both Moser and Marpmann, but need the confirmation of further trial.

The reports seem to indicate that while little is to be expected of the polyvalent sera, Moser's serum certainly deserves extended trial, and further news from that of Marpmann is to be desired. If results are to be obtained from the serum treatment, large doses must be used, one should not look so much for striking results in a particular case as for a somewhat more favorable course in the average of a series, with somewhat diminished mortality and fewer complications.—*Arch. für Kinderheilkunde*, vol. 44, p. 339.

**Early Feeding in Typhoid Fever.**—SMITH read a paper at the Toronto session of the British Medical Association opposing the routine diet for typhoid cases, and emphasizing the importance of studying each patient separately and feeding him according to his needs, speaking particularly of the unwisdom of regulating the diet by the temperature curve, which in this particular matter is one of the most important factors. He presented analyses of his own cases in the London Hospital, 113 in number, compared with those of the rest of the staff, showing that his patients received "solid food" on the average about a fortnight earlier than those of the rest of the staff. Had relatively fewer hemorrhages, perforations, or other complications and averaged 12 days less time in the hospital. In his series, eggs and bread and butter were given, on the average, on the 24th day of the disease, fish on the 32d day, and meat on the 41st day.—*Brit. Med. Jour.*, Oct. 20, 1906.

**The Opsonic Index in Medicine.**—POTTER, DITMAN and BRADLEY give a brief review of the work done by others, a very full bibliography, and an analysis of a considerable amount of work done by themselves on the indices for various organisms and the practical applications of the method. Their conclusions are interesting, especially as there is a tendency among those of the profession who do not appreciate the difficulties, to expect too much from Wright's discoveries. Concerning the practical value of the index, they conclude: That the great difficulty will lie in the fact that changes, more or less profound, are often indicated by very slight variations in the indices—frequently little beyond the limits of experimental error.

That some aid in diagnosis may be obtained by the determination of single indices, but that before this can be considered reliable much work must be done on the specificity of opsonins.

That a wider field of application will lie in the control of frequency of administration and dosage of bacterial vaccines, but that technical difficulties must limit the clinical use for this purpose.

That the method may prove of value in determining susceptibility to infection, especially the inherited susceptibility to tuberculosis.

That perhaps the greatest usefulness may be found in the laboratory, in determining the virulence of organisms and the potency of sera.—*Journal A. M. A.*, Dec. 1, 1906.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**The Omentum and Its Function.**—"The numerous blood-vessels and lax tissues of the omentum allow of storage of blood when the general arterial tension is high. By venous anastomosis through adhesions, local congestions may be relieved. Through its large surface freely exposed to surrounding parts in motion, it becomes a rapid absorber of fluids by the blood-stream. By the lymph-stream it is a free carrier of white blood corpuscles, encapsulating solid particles. Through its cohesive tendency, apertures in the abdomen into which the omentum has been forced by intra-abdominal pressure become more or less completely closed. Through its readiness to lymph formation and local proliferation, it becomes attached to infected parts, which are walled off, subsequently to be absorbed by phagocytic action; the peritoneal cavity thereby protected. The majority of the phagocytes extruded into the peritoneum for its protection come through the omentum, largely from the general circulation, but in part from the tissues therein existing; subsequently to be attached to the surface of this tissue, taken into the lymph-stream, and subjected to the cytolytic influences existing there. Lack of development of the omentum, or loss through operation, renders one less resistant to peritoneal invasion. Haemolymph-glands of the splenic type existing in its base supplement the spleen if the latter be removed or its functions interfered with."—GORDON K. DICKINSON, *Annals of Surgery*, Nov., 1906.

**Appendicitis a Recurring Disease.**—KARRENSTEIN has made exhaustive investigation about the question, how often appendicitis returns after the first spell, if the appendix is not removed, and comes to these conclusions: Appendicitis can be cured spontaneously by sloughing of the appendix, but such cases are rare and cannot be diagnosed. In more than half of the cases appendicitis returns if the appendix is not removed. No internal treatment can prevent the relapse of the attack. If the first spell occurs without fever, or with slight fever, the probability for further spells is greater than if the first spell occurs with very high fever. In 58%, the relapsing attacks are slighter than the first attack; in 28, more serious, and in 14%, about of the same character as the first attack. In 60% the second attack follows in-

side of a year, in 20% inside of the second year, and in 20%, later than in two years after the first attack. In about half of the cases of relapsing appendicitis, more than five spells occur. The more relapses, the less hope for spontaneous cure. These figures show clearly that after the first attack of appendicitis, the appendix should be removed, as this operation in the free interval is less dangerous than further attacks.—*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Vol. 16, Part 3.

**Fracture of Base of Skull.**—Fracture of the base should be treated with the conservatism which goes with the care of other fractures. Although these fractures are not open to the eye or the finger, they are even more liable to mobility and consequent injury of delicate adjacent parts than are fractures of the skeletal bones. Although fixation of basal fractures is not possible by any accurate application, because in the first place the line of fracture is not known, and in the second place may extend in several directions, it is nevertheless presumptive that a patient in bed would be less liable to jar or other kinds of force which might stir up the fracture or dislocate clots.

We, therefore, strongly urge as routine treatment in all cases of even suspected fracture of the base of the skull, rest in bed for full three weeks. Such a patient ought to be in a separate or small, dimly-lighted room, where little can attract his attention. He should have a single low pillow, or none, as he prefers. He should have as few visitors as possible, should take nourishment while lying down, and have practically nothing to attract his attention or to cause any excitement. Food should be easy to digest, cathartics should be used freely to prevent the least strain at stool, which causes cerebral congestion. Headache should be controlled by whatever sedative seems to work best in the given case and used even to an extent to keep the patient more or less somnolent.

This marked conservatism in the care of these cases must help to prevent startling deaths. Treatment which only keeps the patient in bed till his whims demand that he get up, is not rational or careful treatment. The fracture exists even if the patient feels perfectly well. A bone will not heal in three days.—CRANDON and WILSON, *Annals of Surgery*, December, 1906.

## PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

**Germicidal Power of Silver Preparations.—**

DERBY undertook a laboratory investigation of the bactericidal power of various silver salts, realizing the difficulty of drawing practical conclusions from laboratory evidence alone. The solution to be tested was inoculated with a growth of staphylococcus pyogenes aureus and cultures were made from this mixture at stated intervals, the blood serum tubes being then incubated.

His results may be shortly given as follows:

Silver nitrate killed the aureus in from two to five minutes when used in from  $\frac{1}{2}$  to 2% strength;  $\frac{1}{2}$ % for 30 seconds prevented a growth for 24 hours.

Protargol, 2%-4%, usually killed in 3-5 minutes.

Collargol, 4%, did not kill even after 20 minutes exposure. A growth was obtained at the end of 1 hour with 1%.

Albargin in 1% solution is irritating and did not kill with a 15 minutes' exposure. 10% to 20% killed in 2-5 minutes.

Ichthargan is very irritating and kills in 1/10-1% in from 1-4 minutes.

Argentanin, in 5% solution, gave about the same results as ichthargan.

Largin, also irritating, kills in 10% solution in from 2-5 minutes.

Argyrol is exceedingly weak. The aureus after exposure for one to two hours to solutions varying from 10% to 50%, showed growth, although there was usually a diminution in the number of colonies after exposure for twenty minutes. Its action was also very uncertain.

The argument that these newer preparations penetrate better than the silver nitrate DERBY thinks is not of any importance, as earlier investigations, which were confirmed by some experiments of his own, showed that when these solutions become mixed with body fluids they are all rendered practically inert, so that they would be useless even if they did penetrate.—*Bost. Med. and Surg. Jour.*, V. CLV, p. 341.

**Treatment of Spasmodic Bronchial Asthma.**

—HAYNES thinks spasmodic bronchial asthma is due to contraction of the bronchial muscles caused by a peripheral irritation acting on an unstable respiratory center. He then takes up the treatment of the condition which should be directed first, toward improving the general condition of the patient. The effects of climate differ with the different individuals, some doing better in high, dry places, while others stand low and humid localities better. Diet is of great importance; foods which distend the stomach being very injurious, especially when taken toward the latter

part of the day. Late meals are to be avoided. Arsenic, strychnine and the bromides may be given to lessen the instability of the respiratory center.

Potassium iodide, tincture of lobelia, stramonium, and belladonna each have a tendency to lessen the frequency of the paroxysms.

The nasal mucous membrane is often the seat of the peripheral irritation and Alexander Francis reports over 300 cases cured of the disease by cauterization of the anterior third of the nasal septum opposite and above the third turbinate.

The immediate relief of the attacks must be directed if possible toward the removal of the irritating cause, whether an emetic or cathartic may be indicated will depend on the case. Atropine and the nitrites are often useful and are usually given by the inhalation of the fumes from the burning leaves or of blotting paper which has been soaked in potassium nitrate. Morphine, 1-6 grain, which may preferably be given with atropine, 1-100 grain, rarely fails to give relief, but great caution must be exercised in its employment.

The antipyretics are sometimes of service, as is also caffeine, which will act as a central stimulant.—*The Practitioner*, V. LXXVII, p. 524.

**Diphtheria Antitoxin Given Intravenously.**

—Bisson reports the results obtained in the Plajstow Fever Hospital by the intravenous injection of diphtheria antitoxin. The results showed that altogether 660 cases of diphtheria were treated at the hospital between October, 1904, and April, 1906. In this number there was a mortality of 92, or 13.94 per cent. Two hundred of the total were treated by the intravenous method and of this number 33 died, or 16.5 per cent.

"This result is partly due to the fact that all the very severe cases were chosen for the intravenous method." Out of the 200 cases there were nine tracheotomies with three deaths (33%) and there were 18 intubations with two deaths (10.1%).

As to the immediate effects of the injection, "Serum A" was given up because it caused circulatory depression. There was always pyrexia during the first three hours following the administration of the serum accompanied by chilliness and vomiting. A rash usually appeared sometime afterward, but in one case it made its appearance in two minutes.

"Serum B" was followed by pyrexia; in 20 cases only out of the 184 given this serum did the temperature rise over 2°. The rashes were never as severe with this serum as with "A," and there was no edema and at no time was there vomiting.—*Lancet*, V. CLXXI, p. 929.



## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Cerebral Decompression.**—Pallative Operations in the Treatment of Tumors of the Brain. Based on the Observations of Fourteen Cases. This interesting paper of SPILLER and FRAZIER which was read in the section on Nervous and Mental Diseases of the American Medical Association, cites the fact that such operations are not new nor their benefits heretofore unrecognized and reviews the literature of the subject showing many reports attesting relief of headache and pressure symptoms from such operations. Mental symptoms, too, have disappeared with the headache, even in cases in which the tumor could neither be removed nor located. "Exploratory trephining where diagnosis of location has been incorrect has taught us that cerebral decompression may give important results."

Relief of headache has been secured in some cases, even when the dura was not incised. In one of Putman's cases, relief of headache and optic neuritis was secured from a large trephine opening, although the bone was replaced.

SPILLER summarizes, as a result of his review of the literature, that the choked disc, headache, vertigo, nausea, vomiting, and, to some extent, the convulsions are all favorably influenced by this method of treatment, and gives his views, as a result of his experience and study, as follows:

"1. Palliative operations should be performed early in every case in which symptoms of brain tumor are pronounced and before optic neuritis has advanced far, especially when syphilis is improbable, or antisyphilitic treatment has been employed.

2. Partial removal of a tumor, especially of a glioma, is a questionable procedure.

3. Palliative operation does not cause atrophy of a brain tumor and probably does not arrest its growth; on the other hand, it probably does not hasten its growth.

4. Palliative operation is not to take the place of a radical operation when the latter can be performed without great risk to the patient.

5. In some cases, the symptoms of brain tumor disappear almost entirely or for a long time after a palliative operation. This result is obtained either by relief of intra-cranial pressure or by removal of some lesion (meningitis serosa, etc.) other than brain tumor and yet causing the symptoms of brain tumor."

FRAZIER reviews the field from the surgical standpoint, calling attention to the necessity of determining the operability of the case in hand; statistics of cases seen in early stages bring the only fair basis for deduction; and that two classes of cases require a decompressive operation, those in which the tumor cannot be removed in its entirety and those in which the tumor cannot be located. He thinks that in every instance the operator should intend first to attempt to expose the tumor if possible or expedient.

A history of fourteen cases is then given, in

eight of which freedom from pain was secured.—*J. A. M. A.*, Numbers for Sept. 8, 15 and 22, 1906.

**Some Experience with the Simpler Methods of Psycho-Therapy and Re-education.**—Impressed with what he had seen in Paris in the Salpêtrière, where Prof. Dejerine was treating the psycho-neuroses, especially hysteria and neurasthenia, by isolation and psycho-therapy, Prof. Barker of Johns Hopkins University, has sought, and with success, to make use of similar methods in the wards of the Johns Hopkins Hospital. Rest in bed, isolation, suggestion, persuasion, have been applied in a number of cases some fifteen of which are here reported.

Case 1. Hysterical attacks; headache; "fainting spells" with rigidity. No attacks after first week of treatment, the patient resenting isolation and agreeing to have no more "spells."

Case 2. Aerophagia; chronic constipation; hot flushes; symptoms disappeared after two weeks' treatment; discharged after one month apparently well.

Case 3. Hysterical crises; choreiform movements; hemianaesthesia tremor; rapid improvement.

Case 4. Hysterical crises; globus; dermatographia; contracted visual fields; rapid improvement.

Case 5. Hystero-neurasthenia; pathological character; extreme irritability, tremor of eye-lids; morbid fears, etc. She resisted treatment for some time, then rapidly improved.

Case 6. Neurasthenia; fatigability; incapacity for work. Cure.

Case 7. Fixed ideas of unworthiness; despondency; fear of insanity. Cured.

Case 8. Hysterical crises; cephalalgias; blepharospasm. Rapid improvement.

Case 9. Neurasthenia of two years' duration; hypochondriasis; fear of aortic aneurysm, etc. Rapid cure.

Case 10. Severe cephalalgias of many years' duration; emaciation; nervousness; rapid cure, gain of thirty pounds in weight.

Case 11. Nervous gastropathy, fear of gastric ulcer, headache. Rapid cure, gain of twelve pounds in weight.

Case 12. Insomnia, incapacity for work; fear of insanity; obesity. Rapid cure; weight reduced twelve pounds.

Case 13. Entero-neurosis; mucous colitis; nervous incontinence of feces; vasomotor disturbance; rapid improvement, gain of twelve pounds in weight.

Case 14. Neurasthenia, hæmorrhoids; anemia; nicotinism; nervous dyspepsia and diarrhoea; despondency. Rapid cure.

Case 15. Nervous gastropathy; epigastrolgia; nausea; belching; fear of gastric ulcer. Rapid cure.—Lewellys F. Barker in *American Journal of the Medical Sciences*, October, 1906.

## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**Concerning Pressure Sensitiveness of the Superior and Inferior Laryngeal Nerves.**—

Based on a series of 82 cases reported in detail Boenninghaus believes that neuritis of the superior and inferior laryngeal nerves produces a symptom complex which is characteristic and deserving of distinct recognition in laryngology. Pain in different gradations is the most prominent symptom. Sometimes confined to a feeling of pressure, it is often of a burning, stinging character. More marked cases cause a constant ache, often punctuated by shooting pain. In milder cases, pain may be noticed only on empty swallowing, which symptom in the absence of visible cause, the author considers almost pathognomonic. The pain is experienced sometimes in the entire throat, sometimes it is localized in the upper or lower half or the right or left side, as the case may be. From here it often radiates toward the ear or more rarely toward the chest. The condition never occurs before puberty and is most frequent between the period of the third and fifth decade. The great majority of cases appear in the course of an acute exacerbation of chronic laryngitis with or without tracheitis, which together with pharyngitis, is most often secondary to obstruction in the nose. In only thirteen of the eighty-two cases reported was the neuritis secondary to an acute process only. In three cases, however, there was no history or evidence of even an acute process, and therefore the neuritis was considered primary. Spontaneous cures occur, but recurrences are common on account of the chronic throat trouble.

Diagnosis rests entirely upon the presence of pressure pain over the typical areas,—for the superior laryngeal in the lateral half of the membrana thyrohyoidea, for the inferior along the side of the cervical part of the trachea. To examine the upper point, one stands behind the patient whose head must be thrown back and with the thumb and forefinger of the right hand presses simultaneously over the points of the exit of the nerves. Increased sensitiveness on one side is conclusive. To diagnose double neuritis, the pressure pain must be very marked. To examine the lower pressure point, still standing behind the patient, one presses firmly with the first and second fingers of both hands along the sides of the trachea until the vertebrae are felt. Pressure is then made first on one side and then on the other, but never simultaneously. After a short time sensitiveness becomes dulled

and if diagnosis is still in doubt it is advisable to wait until the next examination. The difference in diagnosis rests upon the absence of plausible cause of pain in the throat or larynx, paying especial attention to retention of secretion in tonsillar crypts, pharyngitis lateralis or granula, sensitive lymphatic glands and to the exclusion of hysteria, although the combination with the latter is possible. Local treatment consists in external massage thoroughly applied over the affected areas. In the worst cases galvanism may be added. Naturally the primary cause must be recognized and remedied.—*Archiv für Laryngol*, xvii No. 2.

**Pharyngitis Lateralis.**—The frequency and the distress caused by pharyngitis lateralis together with the slight attention devoted to it in laryngological works, has lead Uffenorde to present an excellent monograph on this subject. Histologically two forms are recognized, a hypertrophic in which the mucous membrane on the side of the throat following the plica salpingopalatina and the plica salpingo-pharyngea is hypertrophied, and the granular form in which only the follicles are involved. Acute and chronic forms of both varieties are recognized. Pain in the throat radiating toward the ear especially prominent at night, is the most frequent symptom. It may vary from a feeling of slight pressure to a severe ache. The sensation of a foreign body in the throat is very common, and a slight tickling may alternate with a racking cough. Fullness, even pain, in the ear, tinnitus and marked functional disturbances, due to interference with ventilation of the middle ear often divert the patient to the aurist. The voice is often affected by limitation of the palate movement as well as by secondary laryngitis. The reflex irritability of the throat is markedly increased. Etiology is practically identical with other forms of chronic pharyngitis, both local and constitutional, causes predisposing. Diagnosis is easy if one bears in mind that slight macroscopical changes can produce most unpleasant effects. Treatment consists in removing favoring factors, the use of some good gargle and douching the nasal pharynx with two per cent zinc chloride solution. If changes are more marked, cauterization of the folds with trichloroacetic acid at the intervals of about eight days is indicated. If very pronounced excision of the folds should be performed.—*Archiv für Laryngol*, xix No. 1.

## GENITO-URINARY SURGERY

Conducted by

W. A. SPITZLEY, M. D.

**Trans-Uretero-Ureteral Anastomosis.**—Indications for Ureteral Anastomosis are the following: 1. Any condition in an operative attack within the abdomino-pelvic area which necessitates an interruption of the continuity of the ureter will demand consideration for the restoration of the integrity of the urinary channel. 2. Operative casualties occurring within the abdomino-pelvic area which seriously impair or destroy the continuity of the ureter. 3. Any pathologic conditions existing in the abdomino-pelvic area which so encroaches upon the ureter, whether by extension or pressure, that its function is seriously handicapped or destroyed.

Extensive handling of the ureters and removal of one or both of them from their normal anatomic positions is made possible only because of a generous and more or less elastic blood supply. This has been worked out in detail by Sampson and, briefly, is as follows: From the aorta the renal, ovarian, iliac, uterine, inferior mesenteric, hemorrhoidal and inferior vesical arteries, there arise smaller arteries which through one set of branches, nourish the ureters themselves, and through another set of branches nourish the tissues adjacent to and surrounding the ureters; all of these branches being freely anastomotic; any amount of manipulation is permissible then without fear of necrosis of the ureter, provided that the ureter is not entirely stripped from its contiguous tissues.

The various methods which have been employed to accomplish ureteral anastomosis are in general somewhat similar to those used in intestinal work: (1) transverse end to end; (2) oblique end to end; (3) invagination; (4) lateral implantation. All of these methods have been shown, in the course of much experimental work, to be anatomic possibilities, and most of them physiologic successes. With one or two exceptions the anastomosis has been an intra-peritoneal one, necessitating, therefore, the withdrawal of one or both ureters very materially from their usual resting places and proportionately dispossessing them of their normal blood supply. The author believing, then, that if a technique could be devised that would more nearly protect the ureter from injury and involvement with other abdominal structures and in addition would conserve the normal blood supply, it would be a great gain, endeavored to ascertain how readily such anastomosis could be made, maintaining the field of operation entirely retroperitoneal. In the cadaver, this was done: In one case the ureter was drawn over to its fellow through the connection tissue be-

tween the vena-cava and aorta posteriorly and the peritoneum anteriorly; in the other experiment the ureter was drawn over between the vertebral column posteriorly and the vena-cava and aorta anteriorly. The actual work was done through a short longitudinal incision in the peritoneum over one ureter; this incision was subsequently closed and the entire field of operation was therefore retroperitoneal.

While retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to vena-cava and aorta, is admittedly more difficult of accomplishment than intraperitoneal trans-uretero-ureteral anastomosis, yet it must be conceded that owing to the shorter hiatus to be bridge, with proportionately less disturbance of the ureters and their blood supply, their probable subsequent vitality and power of function are enhanced. It is also probable that, owing to the replacement of the ureters within beds which are closely allied to, if not in fact actually identical with, their normal surroundings, the interference with their blood supply will be reduced to the minimum, and the possibility of nourishment to be derived from contiguous connective tissue and the peritoneal covering must not be ignored.

The author's method is, therefore, an anatomic possibility; but whether it is a physiologic success must still be determined. The author's conclusions are as follows:

(1) The blood supply of the ureter is ample, of which probably the peri-ureteral arterial plexus is the most essential factor.

(2) Operative procedures, which conserve the blood supply, in particular, the peri-ureteral arterial plexus, are ordinarily satisfactory.

(3) When the integrity of the ureter is impaired, restitutorial, rather than destructive, surgical measures should be followed.

(4) Of which restitutorial measures the various methods of uretero-ureteral anastomosis are recommended.

(5) Intraperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility; it is also a physiologic success.

(6) Retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to the aorta and vena-cava, is an anatomic possibility. (Further experimentation is essential in order to prove that it is a physiologic success). The route followed is the shortest path between the two ureters. The technical difficulties are not excessive. It is highly probable that this method impairs the ureteric blood supply less than any other method in vogue.—SHARPE, *Annals of Surgery*, November, 1906.



## OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

**Tuberculous Labyrinthian Suppuration.**—

HERZOG, Munich, mentions that tuberculous middle ear suppuration frequently penetrates into the inner ear. The promontorium and both windows seem to be especially apt to let the suppuration wander from the middle ear to the inner ear. While, as a rule, inflammatory processes in the labyrinth show more or less fulminant symptoms on the part of the vestibular apparatus, we miss disturbances of that nature, entirely, in tuberculous processes, or they are only intimated. Generally, they cannot be used for diagnostic purposes. This fact is rightly, we assume, explained by the extremely slow and gradual extension of the disease process. The affected nerve elements, for this reason, lose only very gradually their excitability, so that the diseased organism finds ample time to cover the defect, step by step, by the auxiliary apparatus. Statistics concerning the frequency of tuberculous labyrinthian affections are only found in the fundamentally important works of Habermann. The examination of 43 temporal bones of tuberculous cadavers established a tuberculous affection of the hearing organ 13 times. Six times the labyrinth took part in the disease. Three times it was almost destroyed by caries. This shows that 46.1 per cent of tuberculous middle ear suppurations were complicated by labyrinthian suppuration.

So far as can be seen from Habermann's communications, he speaks of 37 individuals who had died of tuberculosis, i. e., 16.2 per cent of all those tuberculous patients had labyrinthian suppuration. —(*Transactions of the German Otological Society*, 1906.)

**The Shape of the Auricle in the Insane and Criminals.**—

BLAU-GOERLITZ examined carefully 210 insane (130 women; 80 men), 206 normal people, 243 prisoners and 20 prostitutes. Blau comes to the conclusion that with insane and criminals, as a rule, a larger lamina auris is present, i. e., an auricle which is more perfect in the sense of Schwalbe. This means an auricle which comes nearer to recollections of animal forms as we find them during the embryonic period. This appears as a somatic sign of degeneration in the strictest sense (*ibid.*).

**Clinical and Bacteriological Observations in Acute Middle Ear Suppurations.**—

KUEMMEL, Heidelberg, considers the parts played by the spe-

cies and virulence of the causative microbe, and on the other side the otoscopic type in the course of a genuine inflammation, and comes to the following conclusions: (1) In purely meso tympanal middle ear inflammation, we can expect a mastoiditis which can be cured only by operation, or the appearance of other complications, only under especially extraordinary circumstances, namely, when the power of resistance of the organism or the local power of resistance of the ear and its adjacent parts is especially injured. (2) On the other hand, the probability of a mastoiditis which cannot be cured without operation, is very strong in those cases which show the characteristics of the epitympanic type, i. e., circumscribed inflammation, bulging or granulom formation in the region of the posterior upper quadrant of the drum membrane. Our small material shows ten operations, compared with seventeen cures without operation. (3) The kind of the causative organism is not without importance. The staphylococci, even if they are very virulent, do not cause, as a rule, a mastoiditis which does not heal up spontaneously. Pure pneumococcic infection is also not so very apt to do this. If the streptococcus, the pyogenes, as well as the mucosus, is causing the inflammation, the chances for a cure without or with an operation are about equal. (*ibid.*).

(Remark of Reviewer. It must be taken for granted that in bringing these results before the otologic society, Kuemmel is aware that he addresses otologically trained physicians. A superficial perusal of these data or a blind adherence to these findings might induce the physician who has not a great experience with cases of this nature to delay surgical interference until it may be too late. Only continual and painstaking observations will allow us to abstain for the time being from surgical interference, in suspicious cases, involving, of course, the necessity to be always ready to act quickly.)

**A Method to Operate for Othaematoma.**—

SELIGMANN (Frankfort on the Main) comes to the conclusion that the cover of the othaematoma consists mostly of cartilage which has become useless to form the shape of the concha. The connective tissue shrinks when the exudate is resorbed. The cartilage cannot follow and those elevations and depressions are formed which produce the known rough and uneven form of the healed othaematoma. Consequently the whole cover must be extirpated with the exception of the normal skin. *Arch. f. Ohrenheilkunde*, October, 1906.